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An Annotated Bibliography: Published Articles (1861-1998) About the Wild Mammals of South Dakota

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SDSU

SOUTH DAKOTA STATE UNIVERSITY
U.S. GEOLOGICAL SURVEY/BIOLOGICAL RESOURCES DIVISION
SOUTH DAKOTA COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT
SOUTH DAKOTA GAME, FISH & PARKS
U.S. FISH AND WILDLIFE SERVICE

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Contents

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An Annotated Bibliography: Published Articles (1861-1998) About The Wild Mammals of South Dakota

Our goal in compiling this bibliography was to locate "every" published article with a connection to "any" wild South Dakota mammal. However, we understood from the start that this goal would be unattainable. Consequently, this collection can provide only a point of origin to readers interested in obtaining published studies (popular and scientific) about the wild mammals of South Dakota.

We apologize in advance for any articles that are not present in this bibliography. Those most likely to be under-represented concern mammals as prey items, mammals as parasitic hosts, and mammals in the fossil records of South Dakota.

Regardless of such shortfalls, the 749 titles (601 primary articles and 148 game reports) presented in this collection will undoubtedly be a valuable reference to anyone with an interest in wild mammals of South Dakota. We strongly request that information on any missing references or references incorrectly cited be brought to the attention of the authors or the Head of the Wildlife and Fisheries Sciences Department, South Dakota State University, Box 2140B, Brookings SD 57007. We recommend that a supplement to this bibliography be compiled periodically, perhaps at 5-year intervals.

This annotated bibliography is in two sections. The first contains the literature or game report citations, their corresponding index reference numbers, and a brief description of each article. The second section contains indices of keywords, species names, study locations, and authors.

Citations 1-601 in Section I, Part I include primary articles in journals, books, theses, proceedings, workshops, and symposia and in completion reports published by the South Dakota Department of Game, Fish and Parks. Citations 1001-1148 (Section I, Part II) include titles of progress reports published by the South Dakota Department of Game, Fish and Parks, many of which are ongoing annual game reports while some are completion

reports. Therefore, we merged many of the titles and authors of these Part II reports. For example, antelope management surveys have been conducted since 1973 and an annual report has been published each year. Instead of presenting a separate citation for each year, we listed one citation with the years noted parenthetically within the title.

We were unable to locate copies of all the game reports listed, therefore, some are not annotated and indexed. For reports that cannot be found at any of South Dakota's public libraries, we suggest contacting the South Dakota Department of Game, Fish and Parks office at 523 East Capitol, Pierre, SD 57501. Many of these reports are on microfilm only.

Although we present some data and conclusions presented by the authors in the annotations, we discourage the use of the annotation information as quotable or as direct reference material. The original source should always be consulted for accuracy and content. The purpose of our annotations was to provide some additional information about the article that could not be inferred from the title or to facilitate sorting or characterization of the articles by the subject material.

Authorship of this bibliography has been a cooperative effort of many individuals over several years. We express sincere thanks to C. Blumberg, M. Dorhout, T. Fischer, B. Kopplin, J. Goulet, J. Bauer, and several SDSU work-study students who helped retrieve and photocopy articles. T. Symens helped with typing and correspondence. M. Brashier provided final manuscript editing and layout. E.D. Stukel and R. Fowler provided draft reviews. The collective assistance of all these people and others helped make this project possible.

Funding for this project was provided in part by the Federal Aid in Wildlife Restoration Program via the South Dakota Game, Fish and Parks Department (Project No. W-75-R, Study No. 7557) and the South Dakota Cooperative Fish and Wildlife Research Unit in cooperation with the U.S. Fish and Wildlife Service, South Dakota State University, the Wildlife Management Institute, the National Biological Survey/Service, and the U.S. Geological Survey/Biological Resources Division.

Section I, Part I
Primary Publications

1. Agenbroad, L. D. and J. I. Mead. 1986. Large carnivores from Hot Springs mammoth site, South Dakota. National Geographic Research 2:508-516.

   Documents the first Pleistocene records of wolf and bear remains from South Dakota. The fossils were discovered with mammoth bones.

2. Agnew, W. D. 1983. Flora and fauna associated with prairie dog ecosystems. M.S. Thesis, Colorado State University, Ft. Collins. 47 pp.

   Reports on the abundance and diversity of small mammals on prairie dog towns vs. adjacent mixed-grass prairie. Mammal abundance was greater on prairie dog towns but species diversity was lower than on mixed grass-prairie sites.

3. Agnew, W. D., D. W. Uresk, and R. M. Hansen. 1986. Flora and fauna associated with prairie dog colonies and adjacent ungrazed mixed-grass prairie in western South Dakota. Journal of Range Management 39:135-139.

   Discusses differences in vegetation characteristics between prairie dog towns and ungrazed prairie. Rodents and birds were more abundant and bird species richness was greater on prairie dog coteries.

4. Agnew, W. D., D. W. Uresk, and R. M. Hansen. 1988. Arthropod consumption by small mammals on prairie dog colonies and adjacent ungrazed mixed grass prairie in western South Dakota. Pp 81-87 *in* Eighth Great Plains Wildlife Damage Control Workshop Proceedings, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

   Compares diets and densities of small mammals captured on and off prairie dog colonies. Rodent densities were greater on the prairie dog colonies, but species richness was lower. Arthropods comprised a greater proportion of the small mammal diets on the colonies vs. off the colonies.

5. Aldous, S. E. 1947. Muskrat trapping on Sand Lake National Wildlife Refuge. Journal of Wildlife Management 11:77-90.

   Assesses various methods of trapping muskrats, including the best time of year for trapping. Information on seasonal sex ratios, growth rates, and movements is also provided.

6. Allen, J. A. 1874. Notes on the natural history of portions of Dakota and Montana territories. Proceedings of the Boston Society of Natural History 17:33-48.

   Describes 31 species of mammals observed on an expedition beginning at Fort Rice (Mobridge, S.D., area) along the Missouri River and northward into Montana.

7. Allen, J. A. 1895. List of mammals collected in the Black Hills region of South Dakota and in western Kansas. By Mr. Walter W. Granger, with field notes by the collector. American Museum of Natural History 7(7):259-274.

   A list of mammals collected from the Black Hills and Badlands regions during an 1894 expedition. Some observations on abundance are included.

8. Anderson, J. M. 1993. Bats of Jewel Cave National Monument, South Dakota. M.S. Thesis, Fort Hays State University, Hays, Kansas. 29 pp. plus tables, figures, and appendices.

   Reports 9 species of bats using Jewel Cave during the summer and winter. Information on the feeding and hibernating sites is presented. Most (93%) of the bats captured were males.

9. Anderson, J. M. and J. R. Choate. 1990. Bats of Jewel Cave National Monument. Bat Research News 30:5960.

Abstract only. Outlines the importance of Jewel Cave National Monument to hibernating bats during winter. Identified 9 bat species (93% males) hibernating at Jewel Cave National Monument during the 1989-90 winter.

10. Anderson, K. W. and J. K. Jones, Jr. 1971. Mammals of northwestern South Dakota. University of Kansas Museum of Natural History 19:361-393.

A species account of 53 mammals collected from Harding County with additional references to 10 species believed to occur in the area. Includes descriptions of major habitats used by the species presented.

11. Andrew, J. D. 1974. Natural mortality factors of elk at Wind Cave National Park, South Dakota. Wind Cave National Park unpublished report. 28 pp.

Evaluation of predation, disease, and parasitism as potential mortality factors of elk at Wind Cave National Park. Blood, tissue, and fecal samples were used in the disease-parasite study while scat was used to investigate possible elk loss to predators.

12. Anonymous. 1951. Phantoms of the grassland and sagebrush; trapped and transplanted. South Dakota Conservation Digest 18(1):2-5.

Report on the successful capture of 83 pronghorn in one attempt. Captured animals were transplanted throughout western South Dakota to restock portions of pronghorn native range. Includes a diagram of the trap design and method of capture.

13. Apa, A. D. 1985. Efficiency of two black-tailed prairie dog rodenticides and their impacts on non-targeted bird species. M.S. Thesis, South Dakota State University, Brookings. 71 pp.

Evaluates the efficiency of two rodenticides on prairie dog populations. Zinc phosphide reduced active burrows by 95% and was successful at controlling long-term population growth.

14. Apa, A. D., D. W. Uresk, and R. L. Linder. 1990. Black-tailed prairie dog populations one year after treatment with rodenticides. Great Basin Naturalist 50:107-113.

Describes the effectiveness of 3 applications with 2 rodenticides (zinc phosphide, strychnine) on prairie dog control. Prairie dogs consumed more zinc phosphide with prebait; this application was the most effective method of population control of the 3 tested.

15. Apa, A. D., D. W. Uresk, and R. L. Linder. 1991. Impacts of black-tailed prairie dog rodenticides on non-target passerines. Great Basin Naturalist 51:301-309.

Evaluates the effects of prairie dog control measures on non-target passerines. Areas baited with strychnine negatively affected horned lark densities 4 days later, but no long-term (1 year) impacts on horned lark densities were detected.

16. Archer, S. R. 1983. Plant community structure, competitive interactions, and water relations as influenced by herbivores. Ph.D. Thesis, Colorado State University, Ft. Collins. 114 pp.

Assesses the effects of prairie dog herbivory on mixed-grass prairie ecosystems at Wind Cave National Park. Prairie dogs affected plant community composition and diversity.

17. Archer, S. R. and J. K. Detling. 1986. Evaluation of a potential herbivore mediation of plant water status in a North American mixed-grass prairie. Oikos 47:287-291.

Reports on differences in water potential among 4 plant species on areas heavily grazed vs. areas lightly grazed by black-tailed prairie dogs. Submits that a wide variety of factors interact in various ways, making it difficult to generalize about the effects of herbivory on plant water potential.

18. Archer, S. R., 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.

Describes a shift in plant communities following prairie dog colonization. Results indicated that perennial grasses were replaced by annual forbs during the first 3 years of colonization.

19. Ashton, D. E. and E. M. Dowd-Stukel. 1991. Fragile legacy. South Dakota Department of Game, Fish and Parks Report No. 91-04. 55 pp.

Informational booklet on South Dakota's rare, threatened, and endangered species, including 7 mammal species. Contains brief descriptions of each species' physical characteristics, habitats, distribution, and conservation measures in South Dakota.

20. Backlund, D. C. 1992. Plains spotted skunk. South Dakota Conservation Digest 59(4):18-19.

Popular account of the plains spotted skunk in South Dakota. Topics include food habits, reproduction, and historical accounts.

21. Backlund, D. C. 1995. Long-eared owls in the Antelope Creek area of Stanley County: notes on nesting and prey species. South Dakota Bird Notes 47:62-63.

Reports on prey items of long-eared owls nesting in Stanley County. Ten species of prey were identified.

22. Backlund, D. C. 1995. New records for the dwarf shrew, pygmy shrew, and least shrew in South Dakota. Prairie Naturalist 27:63-64.

Presents information on the capture of 3 shrew species in Hughes and Sully counties. These captures extend the known range for each species.

23. Bailey, V. 1888. Report on some of the results of a trip through parts of Minnesota and Dakota. Pp 426-454 *in* Report of the Commissioner of Agriculture, Norman J. Colman. USDA, Washington, D.C.

Late-1800s account of mammals collected or observed during an expedition into western Minnesota and the Dakotas.

24. Bailey, V. 1907. Wolves in relation to stock, game, and the national forest reserves. USDA Forest Service Bulletin 72. 31 pp.

Early 1900s account of the distribution of wolves in the U.S. Includes methods to control wolf populations.

25. Bailey, V. 1915. Revision of the pocket gophers of the genus *Thomomys*. North American Fauna 39:1-36.

Provides measurements and morphological characteristics used to differentiate subspecies of the northern pocket gopher. A distribution of subspecies is included.

26. Baker, R. H. and J. S. Findley. 1953. *Sorex vagrans* first reported from South Dakota. Journal of Mammalogy 34:382.

First recorded collection of a vagrant shrew from South Dakota. Measurements of the specimen are given.

27. Barnes, T. G. 1982. Mammal damage and movements of deer mice in South Dakota shelterbelts. M.S. Thesis, South Dakota State University, Brookings. 40 pp.

Describes damage to newly planted shelterbelts by mammals and the feeding preferences of selected mammals. Nearly 9% of the trees examined sustained damage. Laboratory feeding trials indicated rodents preferred honeysuckle while rabbits preferred both elm and honeysuckle.

28. Barnes, T. G., L. Chenoweth, and K. Solomon. 1979. Habitat preference of the white-tailed deer in Brown and Spink counties, South Dakota. Proceedings of the North Dakota Academy of Science 33:84.

    Abstract only. Spotlighting surveys to correlate habitats used and deer numbers. No correlations were detected. However, areas with small grain crops had a higher occurrence of deer than other land-use types.

29. Barnes, T. G. and E. J. Keyser, III. 1982. Animal damage to shelterbelts. South Dakota Conservation Digest 49(6):16-17.

    Popular article discussing the effects of wildlife on shelterbelts in South Dakota. Most damage occurs during winter and early spring, with newly established shelterbelts receiving the most damage.

30. Barnes, T. G., E. J. Keyser, III, and R. L. Linder. 1989. Survey of animal damage and feeding selectivity of rabbits in eastern South Dakota shelterbelts. Pp 154-159 *in* Ninth Great Plains Wildlife Damage Control Workshop Proceedings.

    Nineteen newly established shelterbelts were examined for damage caused by animals. Data on the species responsible for damage are presented along with recommendations for reducing animal damage to shelterbelts.

31. Barnes, T. G. and R. L. Linder. 1982. Small mammal occurrence in South Dakota shelterbelts and movements of *Peromyscus maniculatus*. Proceedings of the South Dakota Academy of Science 61:56-63.

    Seven species of small mammals were trapped in 16 shelterbelts in Brookings County. Home range size for deer mice, the most abundant species captured, averaged 0.06 ha.

32. Barnes, T. G. and T. A. Schaid. 1981. Laboratory feeding preferences of three small mammals for five tree species. Prairie Naturalist 13:78-80.

    Evaluates the foraging effects of deer mice, prairie voles, and cottontail rabbits on common shelterbelt tree species.

33. Baumberger, R. 1977. South Dakota rangeland resources. Society for Range Management, 150 pp.

    Broad look at the status of rangelands in South Dakota, including a discussion of wild mammals inhabiting South Dakota. Includes sections on soils, vegetation, climate, and the history of South Dakota.

34. Beckstead, M. A. and F. Schitoskey, Jr. 1980. Assimilation efficiency of the black-tailed prairie dog. Proceedings of the South Dakota Academy of Science 59:184-193.

    Assimilation efficiency of different diets were determined for captive and wild prairie dogs. Wild prairie dogs assimilated 71.8% of a natural forb and grass diet.

35. Beckwith, D. A. 1961. Study of the taxonomy and habitat distribution of *Reithrodontomys* in southeastern South Dakota and northeastern Nebraska. M.A. Thesis, University of South Dakota, Vermillion. 28 pp.

    Comparison of the morphological characteristics of western harvest mice trapped north and south of the Missouri River in southeastern South Dakota. Capture rates between different habitat types were also evaluated.

36. Bennett, B. and J. H. Bock. 1990. Patterns of plant succession on abandoned prairie dog towns. National Park Service Final Report, Contract # PX-1200-9-C8-21. 22 pp.

    Examines plant succession on black-tailed prairie dog towns following prairie dog removal. Exotic weeds invaded after removal and may compete against native seedlings.

37. Benzon, T. A. 1986. Studying mountain goats. South Dakota Conservation Digest 53(3):17.

    Brief account of a mountain goat study in the Black Hills. Includes a summary of the results and gives locations for viewing mountain goats.

38. Benzon, T. A. and L. A. Rice. 1988. Mountain goat status, Black Hills, South Dakota. Proceedings of the Sixth Biennial Northern Wild Sheep and Goat Council. 168 pp.

Results from a baseline study of mountain goats in the Black Hills of South Dakota. Data on home range, habitat use, and population dynamics are included.

39. Berger, J. 1989. Female reproductive potential and its apparent evaluation by male mammals. Journal of Mammalogy 70:347-358.

Evaluates whether male bison discriminate among females and if males seek out fertile females. Presents indirect evidence to suggest males evaluate female breeding potential and discusses alternative hypothesis.

40. Berger, J. 1991. Pregnancy incentives, predation constraints and habitat shifts: experimental and field evidence for wild bighorn sheep. Animal Behaviour 41:61-77.

Discusses various hypotheses concerning the feeding behavior and habitat use of bighorn sheep with respect to predation risk. Includes the possible benefits of shifting to higher quality forage at the cost of increased predation risk.

41. Berger, J. 1992. Facilitation of reproductive synchrony by gestation adjustment in gregarious mammals: a new hypothesis. Ecology 73:323-329.

Presents data on bison from Badlands National Park to support a new hypothesis that bison shorten gestation periods to synchronize births. However, only females in good condition were able to shorten gestation periods.

42. Berger, J. and C. Cunningham. 1988. Size-related effects on search times in North American grassland female ungulates. Ecology 69:177-183.

Compares anti-predator behavior (search times) to body size of various ungulates with no predatory threat and a real predatory threat. Reports that differences in predator search times by ungulates is related to body size.

43. Berger, J. and C. Cunningham. 1991. Bellows, copulations, and sexual selection in bison (*Bison bison*). Behavioral Ecology 2:1-6.

Reports that male bison vocalized before and after copulation in the presence of rival males. No vocalizations occurred in the absence of rival males.

44. Berger, J. and C. Cunningham. 1995. Multiple bottlenecks, allopatric lineages, and badlands bison: consequences of lineage mixing. Biological Conservation 71:13-23.

Discusses the consequences of mixing genetic lineages in bison at Badlands National Park. Possible consequences include higher winter mortality and decreased production.

45. Berger, J. and M. D. Kock. 1988. Overwinter survival of Carfentanil-immobilized male bison. Journal of Wildlife Diseases 24:555-556.

Compares survival of male bison immobilized with Carfentanil to untreated bison. No difference in survival was detected.

46. Berger, J. and M. Peacock. 1988. Variability in size-weight relationships of *Bison bison.* Journal of Mammalogy 69:618-624.

Presents selected measurements as indices of bison weight. Weight variations associated with genetic origins, sex, age, season, and geographic location are discussed.

47. Berner, L. M. 1953. Deer management in the Black Hills of South Dakota. South Dakota Conservation Digest 20(11):8-13.

Discusses the history and management of deer in the Black Hills, emphasizing population trends and range condition.

48. Best, R. G. and S. Sather-Blair. 1978. Interpretation of available winter wildlife habitat from landsat imagery. Proceedings of the South Dakota Academy of Science 57:122-131.

Outlines the use of landsat imagery to evaluate the quantity and quality of winter habitat for wildlife, specifically white-tailed deer. Primary habitats delineated included wetland, shelterbelt, riparian corridor, and farmstead.

49. Bever, W. 1955. History of antelope in South Dakota. South Dakota Conservation Digest 22(8):2-3.

Popular article summarizing the history of the pronghorn in South Dakota. Distribution and population estimates are reported for western South Dakota (1955).

50. Bevers, M., J. Hof, D. W. Uresk, and G. L. Schenbeck. 1997. Spatial optimization of prairie dog colonies for black-footed ferret recovery. Operations Research 45:495-507.

Presents a spatial optimization model used to explore prairie dog management and black-footed ferret releases and subsequent population growth on federal lands.

51. Biggins, D. E., J. L. Godbey, L. R. Hanebury, B. Luce, P. E. Marinari, M. R. Matchett, and A. Vargas. 1998. Effect of rearing methods on survival of reintroduced black-footed ferrets. Journal of Wildlife Management 62:643-653.

Reports the monitoring of survival of black-footed ferrets reared and released using 4 different methods. Discusses the advantages and disadvantages of each method.

52. Birney, E. C. and R. P. Lampe. 1972. Sagebrush vole (*Lagurus curtatus*) in South Dakota. American Midland Naturalist 88:466.

First record of a sagebrush vole (2 specimens) captured in South Dakota. Contains a species list of other small mammals captured in northwestern South Dakota.

53. Bjugstad, A. J. and C. F. Sorg. 1984. Value of wooded draws on the northern high plains for hunting, furs, and wood cutting. Pp 5-9 *in* Great Plains Agriculture Council Publication No. 111.

Presentation of the recreational value of woody draws on the northern high plains. Includes data on deer licenses sold and furs harvested by species in South Dakota (1965-75).

54. Blair, C. L. 1978. Breeding biology and prey selection of ferruginous hawks in northwestern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 60 pp.

Mammals comprised 94% of ferruginous hawk diets during the breeding season. White-tailed jackrabbits and thirteen-lined ground squirrels were the most common species consumed.

55. Blair, C. L. and F. Schitoskey,Jr.. 1982. Breeding biology and diet of the ferruginous hawk in South Dakota. Wilson Bulletin 94:46-54.

Identifies 12 species of mammals in the diet of ferruginous hawks in Harding County, based on pellet contents and remains found at nest sites.

56. Blank, J. L. and C. Desjardins. 1986. Photic cues induce multiple neuroendocrine adjustments in testicular function. American Journal of Physiology 250:199-206.

Describes effects of photoperiod on male deer mice reproductive hormones. Parents of the specimens originated from Wind Cave National Park.

57. Blank, J. L., R. J. Nelson, and A. Buchberger. 1988. Cytochrome oxidase activity in brown fat varies with reproductive response and use of torpor in deer mice. Physiology and Behavior 43:307-312.

Examines the effects of photoperiod and temperature on reproduction and metabolism of deer mice from Wind Cave National Park.

58. Blank, J. L., R. J. Nelson, R. J. Vaughan, and R. J. Reiter. 1988. Pineal melatonin content in photoperiodically responsive and non-responsive phenotypes of deer mice. Comparative Biochemical Physiology 91:535-537.

Presents differences in pineal melatonin content from 2 phenotypes of deer mice originating from Wind Cave National Park.

59. Blumberg, C. A. 1993. Use of a mail survey to determine present mammal distribution by county in South Dakota. M.S. Thesis, South Dakota State University, Brookings. 136 pp.

Discusses a mail survey to determine the distribution of mammals by county in South Dakota and compares the survey to historical records. Changes in mammal distributions are presented.

60. Bock, C. E. and J. H. Bock. 1983. Responses of birds and deer mice to prescribed burning in ponderosa pine. Journal of Wildlife Management 47:836-840.

Compares the number of deer mice captured at burned and unburned sites. Abundance of deer mice increased 1-year post burn.

61. Bock, J. H. 1987. Fire as an evolutionary force in North American grasslands. American Journal of Botany 74:661.

Abstract only. Reports that bison selectively grazed areas 1-year post burn and that native grasslands have evolved to tolerate grazing.

62. Bock, J. H. and C. E. Bock. 1981. Some effects of fire on vegetation and wildlife in ponderosa pine forests of the southern Black Hills. Unpublished report, Wind Cave National Park. 58 pp.

Describes differences in the use of burned and unburned sites by bison and deer mice at 1- and 2-years post burn. Use of burned areas increased 1-year post burn and declined 2-years post burn.

63. Boddicker, M. L. 1966. Helminth parasites of wild ruminants in South Dakota. M.S. Thesis, South Dakota State University, Brookings. 146 pp.

Evaluates occurrence, geographic distribution, and relative importance of helminth parasites found in wild ruminants of South Dakota. Concludes that the parasitization rate of most cervids was too low to be a management concern, except for pronghorns.

64. Boddicker, M. L. 1968. Parasites of the black-footed ferret. Proceedings of the South Dakota Academy of Science 47:141-148.

Three species of parasites were recovered from 7 road-killed black-footed ferrets.

65. Boddicker, M. L. and E. J. Hugghins. 1969. Helminths of big game mammals in South Dakota. Journal of Parasitology 55:1067-1074.

Examines incidence, distribution, and relative importance of helminths in 7 species of big game mammals in South Dakota. Data on infection rates by species are presented.

66. Boddicker, M. L., E. J. Hugghins, and A. H. Richardson. 1971. Parasites and pesticide residues of mountain goats in South Dakota. Journal of Wildlife Management 35:94-103.

Twenty-eight mountain goats were examined for parasites between 1966 and 1968. Fifteen parasite species were present, along with a high infection rate of lungworms.

67. Boddicker, M. L. and D. R. Progulske. 1968. Helminth parasites of raccoon in South Dakota. Proceedings of the South Dakota Academy of Science 47:161-166.

Examination of 250 raccoons indicated that 38% were infected with at least 1 of 4 helminth parasite species.

68. Boed, W. E. 1938. Do fur bearers affect upland game birds in winter? Transactions of the Third Annual North American Wildlife and Natural Resource Conference 3:508-510.

Abstract only. Lists predators at Waubay National Waterfowl Refuge during winter 1936-37. Discusses the effects of predators on game birds and the role of buffer species.

69. Bogan, M. A., J. G. Osborn, and J. A. Clarke. 1996. Observations on bats at Badlands National Park, South Dakota. Prairie Naturalist 28:115-123.

Surveys bat species at Badlands National Park. Nine species were collected (4 new to park). Reproductive condition of females captured is also presented.

70. Bogan, M. A., J. G. Osborn, M. S. Shipman, and D. J. Worthington. 1993. Bat surveys of Badlands National Park in 1992. National Park Service, Unpublished report, Interior, S.D. 8 pp.

Bats at Badlands National Park were captured to determine species composition, distribution, relative abundance, habitat use, and roost occurrence of bats on the Park. Eight species were collected, with small-footed myotis the most common species captured.

71. Bole Jr., B. P. 1934. *Myotis thysanodes* in South Dakota. Journal of Mammalogy 16:147-148.

First documented record of the fringed myotis occurring in South Dakota. Two specimens were captured in Jewel Cave National Monument.

72. Brizuela, M. A. 1985. Silicon concentrations of grasses from sites with different prairie dog and bison grazing histories. M.S. Thesis, Colorado State University, Ft. Collins. 32 pp.

Gives differences in silicon concentration of grasses under varying grazing intensities. Heavily grazed sites had higher silicon concentrations.

73. Brizuela, M. A. 1987. Prairie dog feeding behavior: response to colonization history and fire. Ph.D. Thesis, Colorado State University, Ft. Collins. 127 pp.

Assesses the temporal and spatial variation of prairie dog diets at Wind Cave National Park. Characterized black-tailed prairie dogs as general feeders with a temporary opportunistic feeding behavior.

74. Brizuela, M. A., J. K. Detling, and M. S. Cid. 1986. Foraging by prairie dogs: effects of fire on diet composition and quality. Pp 101 *in* Proceedings of the Fourth International Congress of Ecology. State University of New York and Syracuse University, New York.

Abstract only. Compares food habits of prairie dogs between burned and unburned sites. Prairie dogs consumed more graminoids and fewer forbs at burned areas vs. unburned sites.

75. Brizuela, M. A., J. K. Detling, and M. S. Cid. 1986. Silicon concentration of grasses growing in sites with different grazing histories. Ecology 67:1098-1101.

Reports on silicon concentration of grasses growing under heavy and light grazing on prairie dog towns. Silicon concentrations were higher in the grasses from the heavily grazed sites.

76. Bromley, P. T. 1977. Aspects of the behavioural ecology and sociobiology of the pronghorn (*Antilocapra americana*). Ph.D. Thesis, University of Calgary, Calgary, Alberta. 370 pp.

Broad discussion on the behavior and sociobiology of pronghorn and the effects of climate, availability of food, predation, and habitat structure on their behavior.

77. Bromley, P. T. 1991. Manifestations of social dominance in pronghorn bucks. Applied Animal Behaviour Science 29:147-164.

Daily observations to assess the dominance hierarchy and territoriality among pronghorn bucks. Territorial bucks chose areas with the greatest abundance of preferred food items.

78. Brundige, G. C. 1985. Lungworm infections, reproduction, and summer habitat use of bighorn sheep in Custer State Park, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 54 pp.

Evaluates infestation rate of lungworms in bighorn sheep and the possible effects on reproductive success. Also presents data on summer habitat use and examines the use of progesterone serum concentrations to detect pregnancies.

79. Brundige, G. C. 1987. Fatal fall by bighorn lamb. Journal of Mammalogy 68:423-425.

Observational account of a bighorn lamb suffering a fatal fall of 40m at Custer State Park.

80. Brundige, G. C., L. J. Layne, and T. R. McCabe. 1988. Early pregnancy determination using serum progesterone concentrations in bighorn sheep. Journal of Wildlife Management 52:610-612.

Evaluates use of serum progesterone concentration to predict pregnancy in bighorn ewes. The technique was 84% accurate over a 2-year period.

81. Brundige, G. C. and T. R. McCabe. 1986. Summer habitat use by bighorn ewes and lambs. Pp 408-422 *in* Proceedings of the Fifth Biennial Symposium of the Northern Wild Sheep and Goat Council, G. Joslin, ed.

Describes use of radio telemetry to monitor bighorn ewe and lamb movements in Custer State Park. The selection and characteristics of 6 habitat types are presented.

82. Buechner, H. 1960. Bighorn sheep in the United States, its past, present, and future. Wildlife Monograph 4:1-174.

Discusses the demise of bighorn sheep throughout its native range in the U.S., including South Dakota. Reports that bighorn sheep were nearly exterminated from the Black Hills by 1887. Various reasons are cited for the species' decline, including competing interests with livestock, lungworm infection, and poor reproduction.

83. Bureau of Indian Affairs. 1991. Prairie dog control program - Cheyenne River and Rosebud Indian Reservations. Bureau of Indian Affairs, Aberdeen, South Dakota. 78 pp.

Outlines the purpose and need for prairie dog control on the Cheyenne River and Rosebud Indian reservations. Discusses various control alternatives and the environmental consequences of each.

84. Cahalane, V. H. 1954. Status of the black-footed ferret. Journal of Mammalogy 35:418-424.

Discusses the rare status of the black-footed ferret throughout its range. Locations of ferret observations or collections are reported for 6 states, including South Dakota.

85. Cahalane, V. H. 1964. Preliminary study of the distribution and numbers of cougar, grizzly, and wolf in North America. New York Zoological Society. 12 pp.

Assesses the distribution and abundance of mountain lions, grizzly bear, and wolves throughout North America, including a small population of mountain lions in the Black Hills and Badlands of South Dakota.

86. Camp, C. L. 1928. James Clyman, American Frontiersman 1792-1881. The Arthur H. Clark Co., Cleveland. 247 pp.

The writings of James Clyman, a member of a company that traversed the Black Hills in the early 1800s. Describes the formations of the Badlands and Black Hills. Includes references for bison, beaver, and grizzly bear in the region.

87. Carlson, D. C. and E. M. White. 1987. Effects of prairie dogs on mound soils. Soil Science Society of America Journal 52:1758-1761.

Assesses prairie dog impacts on soil while burrowing at Wind Cave National Park. Methods for aging mounds based on soil characteristics are presented.

88. Carlson, D. C. and E. M. White. 1988. Variations in surface-layer color, texture, pH, and phosphorous content across prairie dog mounds. Soil Science Society of America Journal 52:1758-1761.

Presents soil characteristics of prairie dog mounds of various geologic ages at Wind Cave National Park.

89. Chadwick and Associates. 1985. Vegetation and wildlife inventory of a draw east of Bobtail Gulch. Unpublished report. 15 pp.

Brief account of wildlife observed in Lawrence County. The survey was conducted to fulfill mining permit requirements.

90. Charles, G. 1964. World's only full mount of Audubon bighorn? South Dakota Conservation Digest 31(2):23.

Historical account of a full mount of the now extinct Audubon subspecies of the Rocky Mountain bighorn sheep.

91. Choate, J. R. and J. M. Anderson. 1997. Bats of Jewel Cave National Monument, South Dakota. Prairie Naturalist 29:39-47.

Census of bat species within and near Jewel Cave National Monument. Nine of 10 species of bats known to reside in the Black Hills were associated with the cave. The importance of Jewel Cave as a winter hibernaculum is discussed.

92. Choate, J. R. and J. K. Jones, Jr. 1981. Provisional checklist of mammals of South Dakota. Prairie Naturalist 13:65-77.

Lists 86 current or former mammal species native to South Dakota, 1 introduced species, and 2 murid rodents. Includes known distributions by county and mentions 14 species previously unrecorded in South Dakota but which may occur within the state.

93. Cid, M. S. 1987. Prairie dog and bison grazing effects on maintenance of attributes of a prairie dog colony. Ph.D. Thesis, Colorado State University, Ft. Collins. 112 pp.

Evaluates effects of simultaneous grazing by prairie dogs and bison on the structure and function of prairie dog colonies in a mixed-grass prairie. Discusses temporal changes in soil and above ground vegetation characteristics in response to grazing.

94. Cid, M. S., J. K. Detling, A. D. Whicker, and M. A. Brizuela. 1991. Vegetation responses of a mixed-grass prairie site following exclusion of prairie dogs and bison. Journal of Range Management 44:100-105.

Describes impact of prairie dog and bison herbivory on mixed-grass prairie vegetation after 2 years of no grazing. Variables analyzed include biomass, diversity, and nitrogen concentration.

95. Cincotta, R. P. 1985. Habitat and dispersal of black-tailed prairie dogs in Badlands National Park. Ph.D. Thesis, Colorado State University, Ft. Collins. 60 pp.

Describes experiments with environmental and habitat quality variables to develop predictive models of prairie dog town growth. Provides population control recommendations based on experimental models.

96. Cincotta, R. P. 1989. Note on mound architecture of the black-tailed prairie dog. Great Basin Naturalist 49:621-623.

Suggests that dome and crater mounds represent functionally identical structures that are built under different constraints in soil transport costs.

97. Cincotta, R. P., D. W. Uresk, and R. M. Hansen. 1984. Management of black-tailed prairie dog populations in parks and preserves. Presented at Thirty-seventh Meeting of the Society for Range Management, Rapid City, S.D.

Abstract only. Presents methods to monitor prairie dog dispersal and recommends methods to control population growth.

98. Cincotta, R. P., D. W. Uresk, and R. M. Hansen. 1987. Demography of black-tailed prairie dog populations reoccupying sites treated with rodenticide. Great Basin Naturalist 47:339-343.

Evaluation of population characteristics of prairie dogs reoccupying a site previously treated with rodenticide and an adjacent untreated site. Juvenile females were found to immigrate into the control sites.

99. Cincotta, R. P., D. W. Uresk, and R. M. Hansen. 1988. Statistical model of expansion in a colony of black-tailed prairie dogs. Pp 30-33 *in* Eighth Great Plains Animal Damage Control Workshop, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Describes development and testing of a statistical model to determine predictors of prairie dog town expansion. High population densities at town edges and low visual obstruction of adjacent prairie were predictors of prairie dog expansion.

100. Cincotta, R. P., D. W. Uresk, and R. M. Hansen. 1989. Plant compositional change in a colony of black-tailed prairie dogs in South Dakota. Pp 171-177 *in* U.S. Forest Service General Technical Report RM-171.

Changes in plant composition of a prairie dog town were monitored over a 4-year period. Observed plant community changes are discussed.

101. Cinq-Mars, R. J., R. S. Hoffmann, and J. K. Jones, Jr.. 1979. New records of the dwarf shrew (*Sorex nanus*) in South Dakota. Prairie Naturalist 11:7-9.

Documents the capture of 4 dwarf shrews in western South Dakota. These records extend the known range of the species eastward about 100 km.

102. Coats, G. W. 1945. Some observations on wildlife in the Black Hills during the past sixty-five years. South Dakota Conservation Digest 12(11):10-11,15.

Singular account of various species of wildlife occurring in the Black Hills from the late 1800s to the mid 1940s. Numerous mammals are mentioned as well as their apparent abundance.

103. Coffman, C. C. and B. McDaniel. 1975. Description of a new species of *Geomylichus fain* and rates of infestations on one of its hosts *Geomys bursarius bursarius* in South Dakota. Acarologia 17:184-193.

Describes the presence of a new species of parasite found on plains pocket gophers. Includes a discussion of the parasite's life cycle.

104. Cohn, J. P. 1991. Ferrets return from near-extinction. Bioscience 41(3):132-135.

Summarizes events leading to the near extinction of black-footed ferrets and the discovery of a small population of ferrets in South Dakota. Reintroduction efforts and propagation plans are presented.

105. Cole, J. E. 1958. Ten-year summary prairie dog report, Wind Cave National Park. National Park Service unpublished report. 18 pp.

Reports on growth and recession of black-tailed prairie dog towns from 1947-57 at Wind Cave National Park and discusses factors responsible for prairie dog fluctuations. Includes chronological sketches and population estimates of prairie dog towns.

106. Collins, A. R., J. P. Workman, and D. W. Uresk. 1984. Economic analysis of black-tailed prairie dog (*Cynomys ludovicianus*) control. Journal of Range Management 37:358-361.

Evaluates economic feasibility of prairie dog control at Conata Basin, South Dakota. Concludes that control costs were greater than the value of the forage saved.

107. Collins, G. D. 1971. *Mediorhynchus grandis* in a short-tailed shrew, *Blarina brevicauda*, from South Dakota. Journal of Parasitology 57:1038.

Reports the recovery of 2 acanthocephalan worms from a short-tailed shrew collected from Brookings County.

108. Collins, G. D. and E. J. Hugghins. 1971. Cuterebrid larvae in a shrew from South Dakota. Journal of Mammalogy 52:609-611.

Reports the presence of botfly larvae in the trachea of a short-tailed shrew captured in Brookings County.

109. Collins, P., D. Christian, and G. Niemi. 1993. Preliminary studies of wildlife use of hybrid poplar plantations. Journal of the Minnesota Academy of Science 57:29.

Abstract only. Evaluates the use of hybrid poplar plantation developments by birds and small mammals in Wisconsin, Minnesota, and South Dakota. No specific data are presented.

110. Cook, F. W. 1945. White-tailed deer in the Great Plains region. Journal of Wildlife Management 9:237-242.

Historical account of the decline of white-tailed deer on the Great Plains. Discusses the importance of establishing wildlife refuges like Sand Lake and Waubay for white-tailed deer populations.

111. Coppock, D. L. 1981. Impacts of black-tailed prairie dogs on vegetation in Wind Cave National Park. M.S. Thesis, Colorado State University, Ft. Collins. 82 pp.

Comparison of plant community characteristics among core areas, the periphery, and areas adjacent to prairie dog towns. Prairie dog densities in relation to the position within the towns were also examined.

112. Coppock, D. L. and J. K. Detling. 1986. Alteration of bison and black-tailed prairie dog grazing interaction by prescribed burning. Journal of Wildlife Management 50:452-455.

Reports the monitoring of bison grazing on a prairie dog colony before and after an adjacent uncolonized grassland was burned. Bison use increased on the burned area and decreased on the prairie dog colony.

113. 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 56:1-9.

Presents effects of prairie dog herbivory on the mixed-grass prairie of western South Dakota. Changes in plant species diversity, nitrogen content, and biomass are given.

114. Coppock, D. L., J. E. Ellis, J. K. Detling, and M. I. Dyer. 1983. Plant-herbivore interactions in a North American mixed-grass prairie, II. Responses of bison to modification of vegetation by prairie dogs. Oecologia 56:10-15.

Exploration of the sympatric relationship between prairie dog colonies and habitat use by bison. Bison selected prairie dog colonies in the summer months for grazing and resting activities.

115. Crosby, L. A. and R. Graham. 1986. Population dynamics and expansion rates of black-tailed prairie dogs. Proceedings of the Twelfth Vertebrate Pest Conference 12:112-115.

Discusses population dynamics of prairie dogs in relation to prairie dog control programs. Provides recommendations for control programs based on the population's rate of expansion.

116. Curtis, B. 1972. Coyotes of the east. South Dakota Conservation Digest 39(6):3-5.

Popular article about increasing coyote populations in eastern South Dakota. Includes a brief summary of coyote life history.

117. Dailey, T. V. 1991. Ecological energetics of mountain goats and bighorn sheep: locomotion and thermoregulation. Ph.D. Thesis, Colorado State University, Ft. Collins. 119 pp.

Assesses energy costs of locomotion and thermoregulation in mountain goats and bighorn sheep with respect to environmental and activity variables. Mountain goats used more energy in shallow snow but less in deep snow and were better adapted for conserving thermal energy.

118. Daley, J. G. 1992. Population reductions and genetic variability in black-tailed prairie dogs. Journal of Wildlife Management 56:212-220.

Examines relationship between population size reduction and the amount of genetic variability in black-tailed prairie dogs at Wind Cave National Park. Mean heterozygosity values ranged from 0.027 to 0.040 but were not related to the severity of recent population reductions.

119. Dalrymple, B. 1919. Gray wolf of South Dakota. Altoona Tribune Company, Altoona, Pa. 33 pp.

Historical account of early wolf control programs in the badlands of South Dakota. Also contains references to other mammals present during the early 1900s.

120. Dalsted, K. J., S. Sather-Blair, B. K. Worcester, and R. W. Klukas. 1981. Application of remote sensing of prairie dog management. Journal of Range Management 34:218-222.

Describes how aerial photography was used to determine the land area of prairie dog towns within Wind Cave National Park. Photos and other variables were used to predict expansion potential and expected direction of growth.

121. Dark, J., P. G. Johnston, M. Healy, and I. Zucker. 1983. Latitude of origin influences photoperiodic control of reproduction of deer mice (*Peromyscus maniculatus*). Biology Reproduction 28:213-220.

Evaluation of the influence of photoperiod on reproduction in mice originating from different latitudes, including specimens from Brookings County. Results indicated that photoperiod regulation on reproduction varied along a latitudinal gradient.

122. Davis, W. H. 1950. Game research tackles Black Hills deer problem. South Dakota Conservation Digest 17(9):8-10,12.

Discusses quality of deer winter range and steps taken by managers and researchers to improve deer use of winter range in the Black Hills.

123. Day, T. A. 1988. Modification of individual plant and community water and nitrogen relations by grassland herbivores. Ph.D. Thesis, Colorado State University, Ft. Collins. 135 pp.

Examines the effects of intensive grazing and urine deposition on plant water and nitrogen. Intensive grazing reduced plant community water losses from transpiration. Above-ground biomass and root mass were higher on urine patches vs. surrounding areas.

124. Day, T. A. and J. K. Detling. 1990. Changes in grass leaf water relations following bison urine deposition. American Midland Naturalist 123:171-178.

Investigates changes in plant physiological processes following bison urine deposition at Wind Cave National Park. Changes in leaf conductance and water potential are presented.

125. Day, T. A. and J. K. Detling. 1990. Grassland patch dynamics and herbivore grazing preference following urine deposition. Ecology 71:180-188.

Evaluates herbivore use of grassland patches created by urine deposition at Wind Cave National Park. The patches covered 2% of the area but provided 7% of the biomass and 14% of the nitrogen consumed by herbivores.

126. Day, T. A. and J. K. Detling. 1994. Water relations of *Agropyron smithii* and *Bouteloua gracilis* and community evapotranspiration following long-term grazing by prairie dogs. American Midland Naturalist 132:381-392.

Compares above-ground biomass, leaf conductance, water potential, canopy air temperature, relative humidity, and wind speed between 2 sites with differing prairie dog grazing histories. Discusses grazing impacts on the structure and function of plant communities.

127. Deisch, M. S. 1986. Effects of three rodenticides on nontarget mammals and invertebrates. M.S. Thesis, South Dakota State University, Brookings. 149 pp.

Compares deer mice densities among sites treated with 3 different rodenticides. Eleven small mammal species were captured during the study.

128. Deisch, M. S., D. W. Uresk, and R. L. Linder. 1989. Effects of two prairie dog rodenticides on ground dwelling invertebrates in western South Dakota. Pp 166-170 *in* Ninth Great Plains Wildlife Damage Control Workshop Proceedings.

Rodenticides had an immediate impact on ants and wolf spiders but no long-term impacts on invertebrate populations.

129. 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.

Effects of 3 prairie dog rodenticide treatments on deer mice densities were evaluated. Only the zinc phosphide treatment reduced deer mice densities.

130. Demaray, F. M. 1981. Home range, home range expansion, dispersal, and mortality of juvenile red foxes in southeastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 61 pp.

Describes fox capture and marking with ear-tags and radio-collars. The majority of active fox dens were located in pastures and idle lands. Trapping and hunting accounted for 95% of the reported mortality. Home range and dispersal data also are presented.

131. Detling, J. K. 1988. Grasslands and savannas: regulation of energy flow and nutrient cycling by herbivores. Pp 131-148 *in* Concepts of Ecosystem Ecology, L. R. Pomeroy and J. J. Alberts, eds.

Discusses role of herbivores on grassland ecosystem structure and function with reference to black-tailed prairie dogs, pronghorn, and bison at Wind Cave National Park. Special topics include rates of consumption, nutrient cycling, and herbivore effects on primary production.

132. Detling, J. K. and E. L. Painter. 1983. Defoliation responses of western wheatgrass populations with diverse histories of prairie dog grazing. Oecologia 57:65-71.

Greenhouse experiment compares differences in western wheatgrass plants originating from a prairie dog colony and an ungrazed exclosure.

133. Detling, J. K. and A. D. Whicker. 1988. Control of ecosystem processes by prairie dogs and other grassland herbivores. Pp 23-29 *in* Eighth Great Plains Animal Damage Control Workshop, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Study of the influences of prairie dog herbivory on the structure and function of plant communities. Also addresses prairie dog influences on the distribution, behavior, and community composition of other grassland herbivores.

134. Dice, L. R. 1939. Estimation of the population of deer mice in the Black Hills of South Dakota and Wyoming. Contributions from the Laboratory of Vertebrate Genetics 10:1-5.

Reports on trapping of deer mice during the summer of 1935 in 10 different habitat types in the Black Hills. Population estimates were made for each habitat type and for all habitats combined.

135. Dice, L. R. 1942. Variation in the deer mouse (*Peromyscus maniculatus*) of the Badlands and Black Hills of South Dakota and Wyoming. Contributions from the Laboratory of Vertebrate Genetics 19:1-10.

Morphological characteristics and pelage colors are used to examine variations in deer mice originating from the Badlands and Black Hills regions. These criteria are used to assign deer mice from the 2 regions into subspecies.

136. Dickmann, D. A. 1961. Helminth parasites of wild mammals from localities in South Dakota, Iowa, and Minnesota. M.S. Thesis, South Dakota State College, Brookings. 89 pp.

Eighteen mammal species in a 3-state area were examined for helminth parasites. Infection rates are reported by species.

137. Dieter, C. D. 1987. Habitat use by beaver along the Big Sioux River. M.S. Thesis, South Dakota State University, Brookings. 60 pp.

Compares beaver activity in grazed, ungrazed, and farmed habitats along the Big Sioux River. Ungrazed areas were selected by beavers, and green ash and sandbar willow were important tree species.

138. Dieter, C. D. 1992. Population characteristics of beavers in eastern South Dakota. American Midland Naturalist 128:191-196.

Presents population characteristics of beavers harvested during a special spring hunting season along the Big Sioux River. Data on age and sex ratios and reproductive biology are presented.

139. Dieter, C. D. and T. R. McCabe. 1988. Beaver crop depredation in eastern South Dakota. Prairie Naturalist 20:143-146.

A 2-year study of beaver damage to corn fields adjacent to the Big Sioux River in eastern South Dakota, in which 63% of the fields were damaged but damage to individual fields was negligible.

140. Dieter, C. D. and T. R. McCabe. 1989. Factors influencing beaver lodge site selection on a prairie river. American Midland Naturalist 122:408-411.

Evaluates habitat selection for beaver lodge sites along the Big Sioux River in Brookings and Moody counties. Bank slope and ungrazed areas were important factors in lodge site selection.

141. Dietz, D. R. and H. E. Messner. 1973. Technique for determining carrying capacity of deer range in the Black Hills of South Dakota. P 25 *in* Transactions of the Eighteenth Annual Conference, Central Mountains and Plains Section of The Wildlife Society.

Abstract only. Outlines the methodology for determining range condition for deer in the central Black Hills.

142. Dietz, D. R. and J. R. Tigner. 1968. Evaluation of two mammal repellents applied to browse species in the Black Hills. Journal of Wildlife Management 32:109-114.

Evaluates two mammal repellents (ZAC, TMTD) for their effectiveness in reducing damage to browse species in the Black Hills. Both were effective at lowering browse rates on selected plant species.

143. Dobson, S. F., R. K. Chesser, J. L. Hoogland, D. W. Sugg, and D. W. Foltz. 1997. Do black-tailed prairie dogs minimize inbreeding? Evolution 51:970-978.

Examines patterns of inbreeding by black-tailed prairie dogs at 2 levels of population structure (i.e., coterie, colony). Although some inbreeding occurred within coteries, prairie dogs minimized inbreeding via dispersal and mating patterns. However, prairie dogs did not minimize inbreeding at the colony level.

144. Dodgen, J. and D. Bradford. 1989. Evaluation of prescribed burning to stimulate bur oak production for white-tailed deer browse. Forty-second Annual Meeting of the Society for Range Management, Billings, Mont.

Abstract only. Discusses management strategies for increasing deer browse. Concludes that bur oak vigor is increased by low intensity prescribed burns.

145. Dowd-Stukel, E. M. 1993. Townsend's big-eared bat. South Dakota Conservation Digest 60(2):18-19.

Describes the general habits of Townsend's big-eared bat in South Dakota. Includes discussion on food habits, habitat use, and reproduction.

146. Dowd-Stukel, E. M. 1994. Northern flying squirrel. South Dakota Conservation Digest 61(2):18-19.

Describes the general habits of the northern flying squirrel found in the Black Hills.

147. Dowd-Stukel, E. M. 1995. Gray wolf. South Dakota Conservation Digest 62(1):18-20.

Popular account of the natural history of the gray wolf in South Dakota. Its importance as a primary predator and historical distribution are discussed.

148. Dowd-Stukel, E. M. 1997. Black-footed ferret. South Dakota Conservation Digest 64(5):18-19.

Summarizes black-footed ferret reintroduction efforts in South Dakota. Discusses the social and biological factors affecting the future of this rare species in South Dakota.

149. Dowd-Stukel, E. M. 1997. South Dakota's chippers. South Dakota Conservation Digest 64(1):20-21.

Reports on the general behaviors and habits of the least and eastern chipmunks in South Dakota.

150. Dreyer, R. 1986. Royalty of the outcrops. South Dakota Conservation Digest 53(3):15-17.

Popular article describing the mountain goat in the Black Hills. Provides information on the introduction and general habits of mountain goats.

151. Drieslein, R. L. 1967. Fox-prey relationships in eastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 88 pp.

Evaluates experimentally reduced fox populations for possible effects on prey populations, primarily ring-necked pheasants. Generally, pheasant populations declined because of other environmental factors after fox reduction, but rabbit and vole populations apparently increased. Suggests that the frequency of pheasants in the fox diet is related to pheasant abundance.

152. Duebbert, H. F. and H. A. Kantrud. 1974. Upland duck nesting related to land use and predator reduction. Journal of Wildlife Management 38:257-265.

Evaluates the effects of predator reduction on the productivity of ducks in South Dakota. Reduction of predators did not increase net production.

153. Duebbert, H. F. and J. T. Lokemoen. 1980. High duck nesting success in a predator reduced environment. Journal of Wildlife Management 44:428-437.

A 6-year study evaluating the effectiveness of intensive predator control on duck nesting success. Control methods included strychnine baits, trapping, and shooting.

154. Duerre, D. C. 1959. Analysis of summer spotlighting for determining deer population indices. M.S. Thesis, South Dakota State University, Brookings. 70 pp.

Analysis of the effects of physiological and ecological factors on summer spotlighting of deer in an attempt to establish a standard spotlighting technique. Deer counts were influenced by climatological and temporal (day, season) factors. Includes recommendations for improving the survey technique.

155. Easterly, T. G. 1989. Effects of ivermectin on lungworm infection and lamb survival in bighorn sheep in Custer State Park. M.S. Thesis, South Dakota State University, Brookings. 48 pp.

Reports on tests of the efficacy of ivermectin on lungworm infection of bighorn sheep. Treatments reduced lungworm densities in the short term, but they were not 100% effective against all stages of the parasite. Lamb survival was not influenced by treatments.

156. Easterly, T. G. and K. J. Jenkins. 1991. Forage production and use on bighorn sheep winter range following spring burning in grassland and ponderosa pine habitats. Prairie Naturalist 23:193-200.

Evaluates the effect of spring burning to increase forage production for bighorn sheep. Forb production increased on burned sites; however, benefits for sheep may be diminished due to heavy grazing from other species.

157. Easterly, T. G., K. J. Jenkins, and T. R. McCabe. 1992. Efficacy of orally administered ivermectin on lungworm infection in free ranging bighorn sheep. Wildlife Society Bulletin 20:34-39.

Gives the effectiveness of tests of ivermectin mixed with alfalfa to treat lungworm infections in bighorn sheep. This method temporarily reduced infections for 1-2 months, after which infection rates returned to non-treatment levels.

158. Easton, E. R. 1981. New geographical record for some fleas (*Siphonaptera*) from the Black Hills of South Dakota. Entomological News 92:45-47.

Documents new records of fleas collected from small mammals captured in the Black Hills.

159. Easton, E. R. and W. J. Wrenn. 1988. Observations on the ecology of chiggers (Acari: Trombiculidae) from South Dakota. Prairie Naturalist 20:217-223.

Examination of 730 specimens representing 5 species of small mammals for the presence of 4 chigger species.

160. Emnett, C. W. and E. J. Hugghins. 1979. Sarcocystis of deer in South Dakota. Proceedings of the South Dakota Academy of Science 58:168.

Abstract only. Examines the high incidence of sarcosystis infection in western South Dakota deer and the role of the coyote as the major host.

161. Emnett, C. W. and E. J. Hugghins. 1979. Sarcocystis of deer in South Dakota. Proceedings of the North Dakota Academy of Science 33:3.

Abstract only. Reports that deer from western South Dakota show a higher incidence of sarcosystis infection than deer from eastern South Dakota or the Black Hills and suggests the coyote as the major host.

162. Emnett, C. W. and E. J. Hugghins. 1982. Sarcocystis of deer in South Dakota. Journal of Wildlife Diseases 18:187-193.

Deer from 3 regions of South Dakota (eastern, western, Black Hills) were examined for sarcocystis. The role of selected carnivores in the disease cycle is discussed.

163. Errington, P. L. 1935. Food habits of mid-west foxes. Journal of Mammalogy 16:192-200.

Compares incidence of prey species between den studies and fecal sample studies of foxes. Includes a brief reference to fox den studies conducted in South Dakota.

164. Errington, P. L. 1936. Sex ratio and variation in South Dakota mink. Journal of Mammalogy 17:287.

A sex ratio of 1.3 male:1.0 female mink is reported for mink trapped in Brookings County from 1919-27. Morphological characteristics are presented for lake and river mink.

165. Errington, P. L. 1938. Decline of a mink population. Journal of Mammalogy 19:250-251.

Observational account of a declining mink population in Brookings County. Possible reasons for the decline are discussed.

166. Errington, P. L. 1951. Concerning fluctuations in populations of the prolific and widely distributed muskrat. The American Naturalist 85:273-292.

Discussion of the many variables influencing the dynamics of muskrat populations. Based on studies and observations in Iowa, Minnesota, and the Dakotas.

167. Evans, D. 1964. Badger: four-legged steam shovel. South Dakota Conservation Digest 31(4):2-4.

Popular description of the badger and its habits with emphasis on its aggressive behavior.

168. Fagerstone, K. A., H. P. Tietjen, and O. Williams. 1981. Seasonal variation in the diet of black-tailed prairie dogs. Journal of Mammalogy 62:820-824.

Finds seasonal variation in the food items consumed by prairie dogs. Plants with new growth were selected over mature plants, possibly due to higher fiber and lower protein content of mature plants.

169. Fagerstone, K. A. and O. Williams. 1982. Use of C_3 and C_4 plants by black-tailed prairie dogs. Journal of Mammalogy 63:328-331.

Analysis of stomach contents of prairie dogs for the presence of C_3 and C_4 grasses in relation to season of the year. Consumption of C_3 grasses was highest in the spring, that of C_4 highest in the summer and fall.

170. Farney, J. P. 1971. Ecological study of Cliff Shelf, Badlands National Monument. Badlands Natural History Association, unpublished report, Interior, S.D. 36 pp.

Census of mammals found at or near Cliff Shelf, a naturally occurring water source within Badlands National Monument. Presents capture rates and sex ratios of bats captured in mist nets.

171. Farney, J. P. and J. K. Jones, Jr. 1980. Notes on the natural history of bats from Badlands National Monument, South Dakota. Prairie Naturalist 12:9-12.

Documents the occurrence of 5 species of bats at Badlands National Park. Brief accounts of the collection sites within the park and body weights are given.

172. Faulkner, C. E. 1973. Legal status of wildcats in the United States. Pp 124-125 *in* Proceedings of a Symposium on Native Cats of North America. Portland, Ore., S. E. Jorgensen and L. D. Mech, eds.

Presents the legal status for wildcats in the U.S. as of 1971. Includes references to bobcat, lynx, and mountain lions in South Dakota.

173. Fauna West Wildlife Consultants. 1991. Ecological and taxonomic review of the swift fox (*Vulpes velox*) with special reference to Montana. 49 pp.

Reviews swift fox management in Montana with references to swift fox populations in South Dakota. Contains an extensive bibliography of swift fox literature.

174. Finch, D. M. 1992. Threatened, endangered, and vulnerable species of terrestrial vertebrates in the Rocky Mountain region. U.S. Fish and Wildlife Service General Technical Report RM-215.

Gives account of threatened, endangered, and vulnerable species occurring in the Rocky Mountain region, including South Dakota. Includes data sources and criteria for identification of these species of concern.

175. Findley, J. S. 1956. Mammals of Clay County, South Dakota. University of South Dakota Publications in Biology 1:1-45.

Lists mammalian species for Clay County. Includes a taxonomic key and descriptions of general habitats used.

176. Findley, J. S. 1956. Comments on the winter food of red foxes in eastern South Dakota. Journal of Wildlife Management 20:216-217.

Presents results from the stomach analysis of 26 red fox. Pheasants occurred most frequently, followed by *Peromyscus* spp and white-tailed jackrabbits.

177. Findley, J. S. 1956. Distribution of some South Dakota mammals. Chicago Academy of Science, Natural History Miscellanea 155:1-2.

Documents the collection sites of 3 rare (least shrew, gray fox, black-tailed jackrabbit) South Dakota mammals.

178. Findley, J. S. and R. H. Baker. 1956. Dwarf shrew first reported in South Dakota. Journal of Mammalogy 37:543.

A shrew previously misclassified as *Sorex vagrans* is reclassified to be a dwarf shrew, *S. nanus*.

179. Findley, J. S. and R. G. Van Gelder. 1955. Short-tailed shrew in South Dakota. Journal of Mammalogy 36:452.

Reports on the collection of 11 short-tailed shrew specimens from Clay County. Body measurements are included.

180. Foltz, D. W. and J. L. Hoogland. 1981. Analysis of the mating system in the black-tailed prairie dog (*Cynomys ludovicianus*) by likelihood of paternity. Journal of Mammalogy 61:706-712.

Examines the mating system of black-tailed prairie dogs from Wind Cave National Park. Suggests that coteries, originally defined as units of social structure, are also units of reproduction.

181. Foltz, D. W. and J. L. Hoogland. 1983. Genetic evidence of outbreeding in the black-tailed prairie dog (*Cynomys ludovicianus*). Evolution 37:273-281.

Electrophoretic analysis used to test for heterozygosity among prairie dogs. Heterozygosity was present, indicating outbreeding.

182. Foltz, D. W., J. L. Hoogland, and G. M. Koscielny. 1988. Effects of sex, litter size, and heterozygosity on juvenile in black-tailed prairie dogs (*Cynomys ludovicianus*). Journal of Mammalogy 69:611-614.

Reports that juvenile males weighed more than females at first emergence and that weight at first emergence was inversely related to litter size. Heterozygosity had no effect on juvenile weight.

183. Forde, J. D., N. F. Sloan, and D. A. Shown. 1984. Grassland habitat management using prescribed burning in Wind Cave National Park, South Dakota. Prairie Naturalist 16:97-110.

A 4-year study that compares the densities of small mammal populations between burned and unburned sites. Deer mice densities increased 1-year post burn while thirteen-lined ground squirrel densities decreased.

184. Franklin, W. L. and A. Abdu-Nabi El-Absy. 1985. Application of freeze-marking to wildlife in the field: prairie dogs. Iowa State Journal of Research 60:71-75.

Ppresents a procedure for marking black-tailed prairie dogs using a pressurized refrigerant.

185. Franklin, W. L. and M. G. Garrett. 1989. Nonlethal control of prairie dog colony expansion with visual barriers. Wildlife Society Bulletin 17:426-430.

Evaluates the use of artificial barriers to reduce prairie dog colony expansion at Wind Cave National Park. Colony expansion was reduced at sites with barriers.

186. Fredrickson, L. F. 1971. Mice and shrews in South Dakota ecosystems. South Dakota Conservation Digest 38(6):2-5.

Popular account of the mice and shrews inhabiting South Dakota. Includes summaries of habits, food, and habitat use.

187. Fredrickson, L. F. 1981. Bobcat management. South Dakota Conservation Digest 48(6):10-13.

Popular account of bobcat management in South Dakota. Discusses harvest rates, regulations, and population characteristics of bobcats in South Dakota.

188. Fredrickson, L. F. 1983. Use of radiographs to age badger and striped skunk. Wildlife Society Bulletin 11:297-299.

Describes the effectiveness and compares costs of aging badger and striped skunk by pulp cavity measurements vs. cementum annuli counts.

189. Fredrickson, L. F. 1997. Bad River bobcats. South Dakota Conservation Digest 64(1):22-23.

Summarizes bobcats captured and radiomarked along the Bad River. Reports on home range, habitat use, and mortality of bobcats.

190. Fritcher, S. C. 1998. Bird and small mammal populations in relation to seral stage of mixed-grass prairie, Fort Pierre National Grasslands, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 128 pp.

Estimates small mammal abundance in relation to seral stages on Fort Pierre National Grasslands. Abundance of grasshopper mice decreased as seral stage changed from low to high. Mammal abundance in relation to vegetation characteristics is discussed.

191. Froiland, S. G. and R. R. Weedon. 1990. Natural history of the Black Hills and Badlands. The Center for Western Studies, Sioux Falls. 225 pp.

Presents detailed descriptions of the flora, fauna, and physical characteristics of the Black Hills and Badlands regions. Includes a checklist of mammals and reference to some of the mammalian fossil records of these areas.

192. Garrett, M. G. 1982. Dispersal of black-tailed prairie dogs (*Cynomys ludovicianus*) in Wind Cave National Park, South Dakota. M.S. Thesis, Iowa State University, Ames. 76 pp.

Describes use of radio telemetry to examine dispersal within and among prairie dog colonies at Wind Cave National Park. Several factors affecting dispersal such as food supply, aggression, and genetic factors were addressed.

193. Garrett, M. G. and W. L. Franklin. 1982. Prairie dog dispersal in Wind Cave National Park: possibilities for control. Pp 185-198 *in* Proceedings of the Fifth Great Plains Wildlife Damage Workshop. University of Nebraska, Lincoln.

Reports that dispersal occurred in late spring for both male and females. Dispersal control methods are suggested.

194. Garrett, M. G. and W. L. Franklin. 1983. Diethylstilbestrol as a temporary chemosterilant to control black-tailed prairie dog populations. Journal of Range Management 36:753-756.

Evaluates the effectiveness of a chemosterilant on expanding prairie dog populations. The chemosterilant successfully decreased colony expansion.

195. Garrett, M. G. and W. L. Franklin. 1988. Behavioral ecology of dispersal in the black-tailed prairie dog. Journal of Mammalogy 69:236-250.

Radio telemetry used to analyze intra- and inter-colony dispersal by prairie dogs. Possible reasons for dispersal are discussed.

196. Garrett, M. G., J. L. Hoogland, and W. L. Franklin. 1982. Demographic differences between an old and a new colony of black-tailed prairie dogs (*Cynomys ludovicianus*). American Midland Naturalist 108:51-59.

Reports that numerous differences existed between the old and new prairie dog colonies. Litter size, growth rates, and survival were greater in the new colony.

197. Garst, W. E. 1954. Black-footed ferret in South Dakota. Journal of Mammalogy 35:594.

Reports on the capture of 5 black-footed ferrets from a prairie dog colony in Haakon County. Three were later released at Wind Cave National Park.

198. Gartner, F. R. and K. E. Severson. 1972. Fee hunting in western South Dakota. Journal of Range Management 25:234-237.

Discusses the history of Dakota Safaris fee hunting in western South Dakota. The group sold trophy hunts on private land to reduce "nuisance factors" associated with free access. Advantages and disadvantages of fee hunting are included.

199. Gartner, F. R., E. M. White, and J. R. Lindsey. 1989. Effect of burning on a bluestem community. Society of Range Management Meeting 42:235.

Presents impact of prescribed burning on prairie grasses. Regrowth on burned areas was heavily utilized by grazing animals.

200. Gastler, G. F., A. L. Moxon, and W. T. McKean. 1951. Composition of some plants eaten by deer in the Black Hills of South Dakota. Journal of Wildlife Management 15:352-357.

Determination by chemical analysis of nutrient composition for both palatable and non-palatable deer forage plant species. Differences in the composition of plant species is discussed.

201. Geis, G. L. 1966. Mobility and behavior of raccoons in eastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 40 pp.

Indicates, from seasonal food analysis of raccoons, that corn was important during the fall and crayfish during the summer. Telemetry results indicated that raccoons had small summer home ranges in Brookings County.

202. Gerhardt, T. D., J. K. Detling, and N. T. Hobbs. 1994. Interactive effects of mowing, fire and primary production on patch selection by large herbivores. Bulletin of the Ecological Society of America 75:75.

Abstract only. Assesses patch selection by herbivores in mowed versus unmowed patches. Grazing intensity was greater in the mowed patches.

203. Gilliland, S. 1968. Beaver's old buck teeth. South Dakota Conservation Digest 35(4):5-7.

Popular article discussing the general habits and distribution of beaver in South Dakota.

204. Giron, B. A. 1981. Wildlife use of man-made wetlands in the prairie pothole region: a selected annotated bibliography. South Dakota Cooperative Wildlife Research Unit Technical Bulletin No 2. South Dakota State University, Brookings. 23 pp.

Contains 46 indexed references from 1948-1980 on wildlife use of man-made wetlands. Includes a brief summary of each paper.

205. Gleason, J. S. and J. A. Jenks. 1993. Factors influencing deer/vehicle mortality in east-central South Dakota. Prairie Naturalist 25:281-288.

Presents seasonal and habitat factors associated with deer-vehicle mortalities in eastern South Dakota. Deer were killed more often than expected near shelterbelts and less often near grassland habitats. The greatest number of mortalities occurred in November.

206. Goldman, E. A. 1944. Classification of wolves. Pp 387-507 *in* Wolves of North America. Dover Publications, Inc., New York. S. P. Young and E. A. Goldman, eds.

Provides the distribution and general characteristics of the gray wolf, including its former range in the Black Hills of South Dakota.

207. Goodstein, C. 1995. Buffalo comeback: Native Americans try restoring a spiritual economy based on bison. The Amicus Journal 17(1):34-37.

Popular account of attempts by Native Americans to establish bison on their native ranges on South Dakota's Indian reservations.

208. Gordon, S. E. 1995. American bison renaissance in South Dakota: a cultural-historical geography. M.S. Thesis, South Dakota State University, Brookings. 116 pp.

Historical look at the demise of bison and the role of bison from South Dakota in redistribution efforts. Special reference is given to private individuals possessing bison herds.

209. Gould, J. H. 1991. Seasonal use of Conservation Reserve Program fields by white-tailed deer in eastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 40 pp.

Investigates the use of Conservation Reserve Program (CRP) by white-tailed deer. Deer selected CRP fields in spring and summer and wetland/woodland habitats in winter. Indicates that CRP lands provide important forage and cover for deer except during winter.

210. Gould, J. H. and K. J. Jenkins. 1993. Seasonal use of Conservation Reserve Program lands by white-tailed deer in east-central South Dakota. Wildlife Society Bulletin 21:250-255.

Describes deer use of Conservation Reserve Program (CRP) lands in order to assess seasonal importance of CRP to white-tailed deer. Deer selected CRP fields for bedding and fawn rearing habitat.

211. Grady, R. M. and J. L. Hoogland. 1986. Why do male black-tailed prairie dogs (*Cynomys ludovicianus*) give a mating call? Animal Behaviour 34:108-112.

Observations of the social behavior of male prairie dogs during the breeding season. Males from a 1-male coterie were more likely to vocalize than males from multiple male coteries.

212. Green, M. 1958. Tertiary occurrence of *Cynomys* in South Dakota. Proceedings of the South Dakota Academy of Science 37:145.

Abstract only. Describes the discovery of a *Cynomys* bone specimen found in Tripp County. The specimen was dated to the late Miocene or early Pliocene period.

213. Green, M. 1960. Late Pleistocene mammals from western South Dakota. Proceedings of the South Dakota Academy of Science 39:38-40.

Documents new additions to the Pleistocene fossil record of mammals in western South Dakota.

214. Green, M. 1960. Tertiary *Cynomys* from South Dakota. Journal of Paleontology 34:545-547.

Documents the occurrence of a new species of *Cynomys* in South Dakota during the Tertiary period.

215. Green, M. 1962. An arthritic grizzly bear from South Dakota. Proceedings of the South Dakota Academy of Science 41:37-40.

Presents the discovery of grizzly bear remains in Fall River County.

216. Green, W. C. H. 1986. Age-related differences in nursing behavior among American bison cows (*Bison bison*). Journal of Mammalogy 67:739-741.

Compares nursing behavior among calves nursing young and older bison cows from Wind Cave National Park. Nursing bout duration was greater for older cows, and older cows allowed their calves to end more bouts than younger cows.

217. Green, W. C. H. 1987. Mother-daughter interactions in American bison (*Bison bison*): factors associated with individual variation. Ph.D. Dissertation, City University of New York, New York. 212 pp.

Results of mother-daughter observations at Wind Cave National Park. Topics include pre-weaning interactions, long-term relations, and variations among dyads.

218. Green, W. C. H. 1990. Reproductive effort and associated costs in bison (*Bison bison*): do older mothers try harder? Behavioral Ecology 1:148-160.

Tests the hypothesis that female reproductive effort increased with age, using bison from Wind Cave National Park. Older mothers had greater reproductive effort and at reduced costs when compared to younger mothers. The increased experience and dominance status of older mothers is cited for the apparent disparity.

219. Green, W. C. H. 1992. Development of independence in bison: pre-weaning spatial relations between mothers and calves. Animal Behaviour 43:759-773.

Outlines the spatial relations between mothers and calves as related to growth, development, and independence in bison calves. The third month post-parturition is when calves began to express independence.

220. Green, W. C. H. 1992. Social influences on contact maintenance of bison mothers and calves: group size and nearest-neighbor distance. Animal Behaviour 43:775-785.

Provides data to support the hypothesis that mothers and offspring maintain close contact in small groups or when far from neighbors as an anti-predator behavior. However, no evidence was found to support the hypothesis that calves grow faster in large groups.

221. Green, W. C. H. 1993. Social effects on maternal age and experience in bison: pre- and post-weaning contact maintenance with daughters. Ethology 93:146-160.

Examines the effects of maternal age on the mother-daughter pair bond in bison from Wind Cave National Park. After the first month postpartum, young mothers and daughters increased contact frequency while older mothers and daughters became increasingly independent.

222. Green, W. C. H. and J. Berger. 1991. Maternal investment in sons and daughters: problems of methodology. Behavioral Ecology and Sociobiology 27:99-102.

Presents data from the Wind Cave National Park bison herd to refute conclusions drawn by another investigator. Concludes that the methods and assumptions used were questionable.

223. Green, W. C. H., J. G. Griswold, and A. Rothstein. 1989. Post-weaning associations among bison mothers and daughters. Animal Behaviour 38:847-858.

Examines the spatial relations of bison mothers and daughters during the first 3 years post-weaning. Benefits of long-term associations between mothers and daughters are discussed.

224. Green, W. C. H. and A. Rothstein. 1991. Sex bias or equal opportunity: patterns of maternal investment in bison. Behavioral Ecology and Sociobiology 29:373-384.

Tests hypotheses concerning the effects of maternal investment by bison females on sex ratio and weight of offspring. Maternal condition had no effects on sex ratio or calf weight.

225. Green, W. C. H. and A. Rothstein. 1991. Trade-offs between growth and reproduction in female bison. Oecologia 86:521-527.

Discusses the relationship between growth and age of reproduction for female bison. Reports that early-maturing females had higher reproductive success but reduced growth.

226. Green, W. C. H. and A. Rothstein. 1993. Persistent influences of birth data on dominance, growth, and reproductive success in bison. Journal of Zoology 230:177-186.

Study conducted at Wind Cave National Park over a 9-year period describing differences in social dominance, fecundity, and growth based on calving date. Earlier born animals were socially dominant, had greater long-term fecundity, and were generally larger.

227. Green, W. C. H. and A. Rothstein. 1993. Asynchronous parturition in bison: implications for the hider-follower dichotomy. Journal of Mammalogy 74:920-925.

Explores the synchronization of parturition in bison as related to calf-hider versus calf-follower survival strategies. Suggests the long birth season at Wind Cave National Park is likely an adaptation to the seasonality of the environment rather than an anti-predator adaptation.

228. Greenwood, R. J., Y. A. Greichus, and E. J. Hugghins. 1967. Insecticide residues in big game mammals of South Dakota. Journal of Wildlife Management 31:288-292.

Census of insecticide residues (DDT, DDD, DDE) from big game mammals harvested by hunters in 1964. Several insecticide residues were found; however, concentrations were not considered to be a human health risk.

229. Greichus, Y. A. and B. A. Dohman. 1980. Polychlorinated biphenyl contamination of areas surrounding two transformer salvage companies, Coleman, South Dakota—September 1977. Pesticides Monitoring Journal 14:26-30.

Evaluates the contamination levels of rodents captured near two transformer salvage sites. PCB levels were higher in 3 species of rodents adjacent to the sites vs. a distant location.

230. Griffin, S. L. 1991. Pronghorn use of agricultural land in northwestern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 63 pp.

Reports on seasonal use of agricultural lands and native range by Harding County pronghorn. Suggests that Conservation Reserve Program lands have potential to reduce crop depredation by pronghorn because of their forage qualities.

231. Griffin, S. L. 1996. Northern hills whitetails. South Dakota Conservation Digest 63(2):14-16.

Popular account summarizing the results of a 3-year telemetry study of white-tailed deer in the northern Black Hills. Information on home range area, habitat use, and seasonal movements is presented.

232. Gruebele, M. J. and A. A. Steuter. 1988. South Dakota records of pygmy and arctic shrews: response to fire. Prairie Naturalist 20:95-98.

Compares, using pitfall traps, the abundance of shrews in burned and unburned pastures. Captures of pygmy and arctic shrews extended the known distributions of these species westward 125 km.

233. Gunderson, D. R. 1961. Some life history and ecological activities of the Richardson ground squirrel in South Dakota. M.S. Thesis, South Dakota State University, Brookings. 78 pp.

Thorough study of the life history, behavior, ecology, and biology of the Richardson ground squirrel. Includes chapters on economic impacts, crop damage, and early control measures.

234. Gunderson, H. L. 1978. Mid-continent irruption of Canada lynx, 1962-63. Prairie Naturalist 10:71-80.

Documents an irruption of lynx populations in the early 1960s and subsequent dispersal into marginal habitats, including 3 records from South Dakota. Possible causes for the irruption and dispersal are presented.

235. Gunier, W. J. 1971. Long-distance record for movement of a gray bat. Bat Research News 12:5.

Reports a banded gray bat was captured in Lawrence County that had been banded 13 months before in Missouri. The straight-line distance (637 miles) was believed to be the longest recorded movement in North America of a banded bat.

236. Gunnell, G. F. and A. Foral. 1994. New species of *Bretzia* (Cervidae: Artiodactyla) from the latest Pleistocene or earliest Holocene of Nebraska and South Dakota. Journal of Mammalogy 75:378-381.

Describes a new *Bretzia* species in the Cervidae, based on the collection of fossil antlers from South Dakota and Nebraska.

237. Hagmeier, E. M. 1956. Distribution of marten and fisher in North America. Canadian Field Naturalist 70:149-168.

Covers the distribution of marten and fisher in North America. Reports that both species probably occurred in the Black Hills and eastern South Dakota in the past.

238. Hallman, K. A. and J. L. Butler. 1992. Small-mammal species diversity and abundance within woodland habitat patches along the Big Sioux River in Union County, South Dakota. Proceedings of the South Dakota Academy of Science 71:166-167.

Abstract only. Evaluates the association between habitat patch size and diversity to the diversity and abundance of small mammals. Small mammal diversity was inversely related to plant diversity, and areas with low plant diversity had the highest small mammal abundance.

239. Hamm, D. C. 1973. Evaluation of cattle use of a deer winter range in the Black Hills. M.S. Thesis, South Dakota State University, Brookings. 69 pp.

Evaluated possible resource competition between cattle and deer on winter range. Cattle grazing in the summer did not negatively affect winter carrying capacity.

240. Handley, C. O.,Jr. 1953. New South Dakota locality for the kangaroo rat, *Dipodomys*. Journal of Mammalogy 34:264.

Documents the discovery of auditory bullae belonging to the kangaroo rat which were collected during ecological surveys prior to construction of Oahe dam. This record extends the known range of this species 150 miles east.

241. Hansen, R. M. 1988. Chronology of prairie dog control operations and related developments in South Dakota. Pp 121-122 *in* Eighth Great Plains Animal Damage Control Workshop, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Synopsis of prairie dog control efforts in South Dakota from the early 1900s to the mid 1980s. Describes changes in control methods, costs, and acres treated.

242. Hansen, R. M. and R. P. Cincotta. 1981. Establishment and growth of black-tailed prairie dog (*Cynomys ludovicianus*) towns. National Parks Service Annual Report, Contract Number CX-1200-1-B035. 26 pp.

Discusses prairie dog-habitat relationships with special emphasis on survival behavior.

243. Hansen, R. M. and R. P. Cincotta. 1982. Prairie dog dispersal and habitat preference in Badlands National Park. National Park Service unpublished report. 44 pp.

Results from the first 2 years of a 3-year study investigating vegetative and soil characteristics of black-tailed prairie dog colonies. Includes data on expansion rates and reinvasion rates along eradicated town edges. Prairie dog impact on range condition is also discussed.

244. Hanson, W. O. 1950. Mountain goat in South Dakota. Ph.D. Dissertation, University of Michigan. 92 pp.

Presents information on biology, natural history, and management of the mountain goat in the Black Hills, beginning with its accidental introduction in the Hills. Includes an index of 15 mammal species observed in the range of the mountain goat.

245. Harksen, J. C. 1968. *Ondatra* from the Pleistocene of South Dakota. Proceedings of the South Dakota Academy of Science 47:46-48.

Documents the collection of *Ondatra* fossils from the Pleistocene era in South Dakota.

246. Harmon, W. H. 1944. Notes on mountain goats in the Black Hills. Journal of Mammalogy 25:149-151.

Brief history of the mountain goat in the Black Hills. Winter and spring diets are reported, based on visual observations.

247. Harner and Associates, Inc. 1990. Wildlife survey of Whitewood Creek in Lawrence, Meade and Butte counties in South Dakota. Unpublished report. 22 pp.

Brief report of wildlife observed along Whitewood Creek. The survey was conducted to fulfill permit requirements for a proposed gold mining operation.

248. Harris, D. 1952. Supplemental deer feeding in the Black Hills. South Dakota Conservation Digest 19(6):6-7.

Describes the effects of supplemental feeding of deer during severe winters. Reports that less than 3% of the deer on or near the feeding grounds perished.

249. Harris, D. and S. E. Aldous. 1946. Beaver management in the northern Black Hills of South Dakota. Journal of Wildlife Management 10:348-353.

Discusses the history of beaver management in South Dakota, including reintroduction and movement studies.

250. Hart, E. B. 1980. Canine pulp cavity as an index of aging in South Dakota carnivores. Proceedings of the South Dakota Academy of Science 59:261-262.

Abstract only. Records over 50 morphological measurements as possible age indicators from carcasses of wild mink, red fox, and badger collected from an eastern South Dakota fur dealer. Pulp cavity related variables were correlated with cementum annuli and may be helpful in aging small carnivores.

251. Hart, E. B. 1982. Intercanine crown distances in red foxes and badgers. Great Basin Naturalist 42:601-602.

Compares intercanine crown distances for age and sex classes of red foxes and badgers. Suggests that this technique may be useful in aging red fox.

252. Hart, E. B. 1983. Population status of northeastern South Dakota badgers. Proceedings of the South Dakota Academy of Science 62:204.

Reports on a declining badger population from 1980 to 1983, using age and sex ratio data from harvested animals.

253. Hart, E. B. and M. Trumbo. 1983. Winter stomach contents of South Dakota badgers. Great Basin Naturalist 43:492-493.

Reports the winter diet of 33 badgers harvested from eastern South Dakota. Approximately 40% of the diet was mammals, 35% plant material, 10% birds, and 10% insects.

254. Haugen, A. O. 1974. Reproduction in the plains bison. Iowa State Journal of Research 49:1-8.

Presents data on conception rates by age, sex ratios of embryos, and dates of conception for bison cows from Wind Cave National Park and Custer State Park.

255. Hauk, J. K. 1969. Badlands; its life and landscape. Badlands Natural History Association, Publication No 2, Interior, S.D. 64 pp.

Describes the natural history of the Badlands, including its formations, fossils, wildlife, plant life, and climate. Includes a checklist of 54 mammals inhabiting the Badlands.

256. Hayden, F. V. 1861. Mammals. Pp 138-151 *in* On the Geology and Natural History of the Upper Missouri. Transactions of the American Philosophical Society No. 12.

Describes mammals observed or captured along the upper Missouri River (1856-57). Presents general habitats, distributions, and abundance of selected species.

257. Hayes, W. K. 1997. Crop depredation by white-tailed deer at Sand Lake National Wildlife Refuge, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 90 pp.

Reports on deer damage to agricultural crops by comparing the biomass of open plots to fenced plots. Biomass and kernel production were reduced by 8-11%. Dietary consumption and possible effects of surrounding habitats were also examined.

258. Henderson, F. R., P. F. Springer, and R. Adrian. 1969. Black-footed ferret in South Dakota. South Dakota Department of Game, Fish and Parks Technical Bulletin No. 4, Pierre, S.D. 37 pp.

In-depth study on the ecology and distribution of the black-footed ferret in South Dakota. The importance of prairie dogs to ferret ecology is also described.

259. Herren, V. and B. Luce. 1997. Black Hills bat project, final report 1997. South Dakota Department of Game, Fish and Parks unpublished report. 42 pp.

Summarizes bat population studies conducted in the Black Hills in 1997. Various caves and buildings throughout the Black Hills were monitored for bat activity.

260. Herrero, S., L. Schroeder, and M. Scott-Brown. 1986. Are Canadian foxes swift enough? Biological Conservation 36:159-167.

Describes the reintroduction of swift foxes originating in South Dakota into Canada using a captive breeding program.

261. Hicks, J. 1985. Black-footed ferrets (*Mustela nigripes*). Veterinary Technician 6:318-321.

Discusses biology of the black-footed ferret. Contains a section on the diseases and parasites which infect ferrets.

262. Higgins, K. F., D. E. Nomsen, and W. A. Wentz. 1987. Role of the Conservation Reserve Program in relation to wildlife enhancement, wetlands, and adjacent habitats in the northern Great Plains. Pp 99-104 *in* Impacts of the Conservation Reserve Program on the Great Plains, Symposium Proceedings USDA General Technical Report RM-158, Denver, J. E. Mitchell, ed.

Discusses role of the USDA's Conservation Reserve Program (CRP) and the enhancement of wildlife population and wetland conservation. Mammals expected to benefit from CRP include white-tailed deer, rabbits, and various squirrels.

263. Hildreth, M. B. and D. Schneider. 1989. Zoonotic helminths in red foxes from east central South Dakota. Proceedings of the South Dakota Academy of Science 68:109.

Abstract only. Presents helminth infection rates of 25 foxes, 13 dogs, and 18 cats. All foxes were infected with at least 1 helminth species. The 56% infection rate of *Echinococcus multilocularis* in foxes seemed unusually high.

264. Hill, R. R. 1946. Palatability ratings of Black Hill plants for white-tailed deer. Journal of Wildlife Management 10:47-54.

Gives seasonal food preferences for white-tailed deer in the northern Black Hill, based on stomach and range analysis. High, medium, and low palatability ratings are provided for plants in each of the 4 seasons analyzed.

265. Hill, R. R. and D. Harris. 1943. Food preferences of Black Hills deer. Journal of Wildlife Management 7:233-235.

Reports on the stomach contents of white-tailed and mule deer from the Black Hills. Frequency of occurrence and volumetric data of food items are presented.

266. Hillman, C. N. 1968. Life history and ecology of the black-footed ferret in the wild. M.S. Thesis, South Dakota State University, Brookings. 28 pp.

Examines seasonal and daily activity patterns using observations of 21 ferrets in Mellette County. Ferrets fed primarily on black-tailed prairie dogs.

267. Hillman, C. N. 1968. Field observations of black-footed ferrets in South Dakota. Transactions of the Thirty-third North American Wildlife and Natural Resource Conference 33:433-443.

Presents results from an observational study of 21 black-footed ferrets in Mellete County. Activity patterns and food habits were among the factors examined.

268. Hillman, C. N. 1971. Black-footed ferret. South Dakota Conservation Digest 38(4):5-7.

General description of the black-footed ferret, its habits, and its rare status. Includes reported locations of ferret sightings in South Dakota between 1968 and 1970.

269. Hillman, C. N. 1972. Collared deer. South Dakota Conservation Digest 39(1):6.

Briefly discusses the movements of radio-marked deer captured in 1971.

270. Hillman, C. N., R. L. Linder, and R. B. Dahlgren. 1979. Prairie dog distribution in areas inhabited by black-footed ferrets. American Midland Naturalist 102:185-187.

Describes distribution of black-tailed prairie dogs in western Mellete County. Recommends maintaining a minimum of 8 towns per township for black-footed ferret habitat.

271. Hillman, C. N. and J. C. Sharps. 1978. Return of swift fox to northern Great Plains. Proceedings of the South Dakota Academy of Science 57:154-162.

Documents the expansion of swift fox populations into Shannon County, South Dakota. Includes results of swift fox studies in Shannon County.

272. Hodorff, R. A. 1985. Wildlife response to stand structure of green ash woodlands. M.S. Thesis, South Dakota State University, Brookings. 60 pp.

Compares use of open and closed stands of green ash woodlands by birds and mammals using trapping grids, track stations, and pellet surveys. Varying habitat use of selected mammals is presented.

273. Hodorff, R. A., C. Hull-Sieg, and R. L. Linder. 1988. Wildlife response to stand structure of deciduous woodlands. Journal of Wildlife Management 52:667-673.

Examines mammal populations in open and closed stands of green ash in northwestern South Dakota using small mammal trapping and track counting stations. Seventeen mammal species were recorded during the study.

274. Hoffman, W. J. and M. D. Late. 1877. List of mammals found in the vicinity of Grand River, Dakota Territory. Proceedings of the Boston Society of Natural History 19:94-102.

Lists 37 species of mammals found near the Grand River military post in the 1870s. General descriptions of habitats used and apparent abundance of species is reported.

275. Hoffmann, R. S. and J. K. Jones, Jr.. 1970. Influence of late-glacial and post-glacial events on the distribution of recent mammals on the northern Great Plains. Pp 355-433 *in* Pleistocene and Recent Environments of the Central Great Plains. University of Kansas Special Publication No. 3, Lawrence, W. Dort, Jr. and J. K. Jones, Jr., eds.

Biogeographic analysis of the flora and associated mammalian fauna of the northern Great Plains and the influence of glacial events on the current mammalian distribution. Includes a list of mammal species grouped by major faunal units.

276. Holland, E. A. and J. K. Detling. 1990. Plant response to herbivory and below ground nitrogen cycling. Ecology 71:1040-1049.

Evaluates impact of prairie dog herbivory on plant growth and nitrogen cycling, using field and laboratory measurements.

277. Hoogland, J. L. 1978. Sociobiology of black-tailed prairie dogs (Sciuridae: *Cynomys ludovicianus*). National Geographic Society Research Reports 19:353-363.

Synopsis of studies involving the social behavior of black-tailed prairie dogs at Wind Cave National Park. Topics include nepotism, mating systems, and inbreeding.

278. Hoogland, J. L. 1978. Aggression, ectoparasitism and other possible costs of prairie dog (Sciuridae, *Cynomys* spp.) coloniality. Behaviour 14:1-35.

Investigates effects of coloniality for white-tailed and black-tailed prairie dogs. Aggression and ectoparasitism were positively correlated with ward size.

279. Hoogland, J. L. 1979. Effect of colony size on individual alertness of prairie dogs (Sciuridae: *Cynomys* spp.). Animal Behaviour 27:394-407.

Compares alertness of loosely colonial white-tailed prairie dogs and densely colonial black-tailed prairie dogs. Data indicated that alertness is related to population size and density.

280. Hoogland, J. L. 1981. Evolution of coloniality in white-tailed and black-tailed prairie dogs (Sciuridae: *Cynomys leucurus C. ludovicianus*). Ecology 62:252-272.

Examines 3 hypotheses for the coloniality of prairie dogs, using study sites in Colorado, Wyoming, and South Dakota. Results indicated that predation may be the main cause of coloniality in prairie dogs.

281. Hoogland, J. L. 1982. Prairie dogs avoid extreme inbreeding. Science 215:1639-1641.

Reports that prairie dogs do not mate with close genetic relatives and discusses 4 ways that inbreeding is avoided.

282. Hoogland, J. L. 1983. Nepotism and alarm calling in the black-tailed prairie dog (*Cynomys ludovicianus*). Animal Behaviour 31:472-479.

Study of black-tailed prairie dog alarm calling behavior at Wind Cave National Park. Alarm calls were an attempt to warn close genetic relatives of danger. However, non-related immigrants also called on occasion, suggesting factors other than nepotism are involved.

283. Hoogland, J. L. 1983. Black-tailed prairie dog coteries are cooperatively breeding units. American Midland Naturalist 121:275-280.

Discusses breeding behavior of black-tailed prairie dogs.

284. Hoogland, J. L. 1985. Infanticide in prairie dogs: lactating females kill offspring of close kin. Science 230:1037-1040.

Documents the occurrence of infanticide by prairie dogs and presents data to suggest that it is a major cause of juvenile mortality.

285. Hoogland, J. L. 1986. Nepotism in prairie dogs (*Cynomys ludovicianus*) varies with competition but not kinship. Animal Behaviour 34:263-270.

Prairie dogs are sociable with both close and distant kin. Nepotism decreases during breeding due to increased competition for mates, nesting burrows, and breeding rights.

286. Hoogland, J. L. 1992. Levels of inbreeding among prairie dogs. The American Naturalist 139:591-602.

Discusses evolutionary advantages of inbreeding/outbreeding among prairie dogs at Wind Cave National Park. Individuals avoided inbreeding with close relatives (parents, offspring) but regularly inbred with more distant kin (first cousins).

287. Hoogland, J. L. 1995. The black-tailed prairie dog: social life of a burrowing mammal. University of Chicago Press, Chicago. 557 pp.

Examines the life history of prairie dogs based on 16 years of observations at Wind Cave National Park. Numerous topics include evolution, social organization, burrow systems, and population dynamics.

288. Hoogland, J. L., D. K. Angell, J. G. Daley, and M. C. Radcliffe. 1988. Demography and population dynamics of prairie dogs. Pp 18-22 *in* Eighth Great Plains Animal Damage Control Workshop, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Presents prairie dog population data from 14 years of research on a study colony at Wind Cave National Park. Results addressed colony area, size, and number of burrows and mortality, dispersal, and immigration.

289. Hoogland, J. L. and D. W. Foltz. 1982. Variance in male and female reproductive success in a harem-polygynous mammal, the black-tailed prairie dog (Sciuridae: *Cynomys ludovicianus*). Behavioral Ecology and Sociobiology 11:155-163.

Observations of black-tailed prairie dog breeding behavior coupled with blood samples present evidence that black-tailed prairie dogs at Wind Cave National Park are polygynous breeders.

290. Hoogland, J. L. and J. M. Hatter. 1987. Using molar altrition to age live prairie dogs. Journal of Wildlife Management 51:393-394.

Evaluates the use of molar wear to age prairie dogs. The method had an 86% accuracy rate.

291. Hoogland, J. L., R. H. Tamarin, and C. K. Levy. 1989. Communal nursing in prairie dogs. Behavioral Ecology and Sociobiology 24:91-95.

Reports that 68% of the juvenile black-tailed prairie dogs sampled received milk from foster mothers. Suggests that communal nursing may result because lactating females seem unable or unwilling to discriminate between their own and others' offspring.

292. Hop, K. D., K. F. Higgins, and D. E. Nomsen. 1989. Vertebrate wildlife use of highway borrow pit wetlands in South Dakota. Proceedings of the South Dakota Academy of Science 68:47-54.

Surveys borrow pit wetlands >20 years old for wildlife use. Seven species of mammals used the borrow pits. White-tailed deer, raccoon, and muskrats were the most frequent users.

293. Houtcooper, W. C., D. J. Ode, J. A. Pearson, and G. M. Vandel, III. 1985. Rare animals and plants of South Dakota. Prairie Naturalist 17:143-165.

Includes list of 28 rare South Dakota mammals and their status from uncommon to extirpated. Current and historical geographic locations are provided.

294. Hugghins, E. J., H. H. Casper, and C. D. Ward. 1988. Tissue fluoroacetate residues in prairie dogs dosed with low-level sodium monfluoroacetate. Journal of Analytical Chemistry 71:579-581.

Discusses the dosing of black-tailed prairie dogs from South Dakota with 1080 to estimate the median lethal dose and test for secondary poisoning on non-target species. The LD50 of 1080 was 0.173 mg/kg. No ill effects were observed when European ferrets were fed the poisoned prairie dogs.

295. Hull-Sieg, C. 1988. Small mammals: pest or vital components of the ecosystem. Pp 88-92 *in* Eighth Great Plains Wildlife Damage Control Workshop Proceedings, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Discusses role of small mammals in ecosystem management. Includes commentary on the influence of small mammals on plant communities, soil, and other animals.

296. Hull-Sieg, C. 1988. Value of rocky mountain juniper (*Juniperus scopulorum*) woodlands in South Dakota as small mammal habitat. Pp 328-332 *in* Management of Amphibians,Reptiles, and Small Mammals in North America. U.S. Forest Service General Technical Report RM-166.

Compares species composition and distribution of small mammals for juniper woodlands and adjacent mixed-grass prairie in Badlands National Park. Two-year averages for species captured are presented for the 2 habitats.

297. Hull-Sieg, C., R. A. Hodorff, and R. L. Linder. 1984. Stand condition as a variable influencing wildlife use of green ash woodlands. Pp 36-39 *in* Great Plains Agriculture Council No. 111.

Gives preliminary results from a study comparing mammal populations between green ash woodlands in good and poor condition. Mammal abundance was estimated by track counts and trapping.

298. Hull-Sieg, C. and K. E. Severson. 1996. Managing habitats for white-tailed deer in the Black Hills and Bear Lodge mountains of South Dakota and Wyoming. USDA Forest Service General Technical Report RM-GTR-274, Fort Collins, Colo. 24 pp.

Discusses management strategies for white-tailed deer in the Black Hills. Emphasis is on managing winter range via prescribed burning, timber harvest, and the removal of livestock from winter range.

299. Ingham, R. E. and J. K. Detling. 1984. Plant-herbivore interactions in a North American mixed-grass prairie, III. Soil nematode populations and root biomass on *Cynomys ludovicianus* colonies and adjacent uncolonized areas. Oecologia 63:307-313.

Examines the seasonal dynamics of soil nematodes and root biomass from a heavily grazed prairie dog colony. Grazing by above-ground herbivores appeared to facilitate grazing by below-ground herbivores.

300. Jackley, A. M. 1944. Badger, rattlesnake enemy, says expert. South Dakota Conservation Digest 11(1):2-3.

Reports on the ability of badgers to kill rattlesnakes. Several accounts of this behavior are presented.

301. Jaramillo, V. J. and J. K. Detling. 1988. Grazing history, defoliation, and competition: effects on shortgrass production and nitrogen accumulation. Ecology 69:1599-1608.

Compares impact of prairie dog herbivory on blue grama grass on a heavily grazed site and a non-grazed site. Concluded that morphological and physical differences existed between plants originating from the two sites.

302. Jense, G. K. 1968. Food habits and energy utilization of badgers. M.S. Thesis, South Dakota State University, Brookings. 39 pp.

Reports use of digestive tracts from collected specimens to assess the food habits of badgers in eastern South Dakota. A penned study was conducted to evaluate the digestibility of various diets.

303. Jense, G. K. and R. L. Linder. 1970. Food habits of badgers in eastern South Dakota. Proceedings of the South Dakota Academy of Science 49:37-41.

Shows seasonal food habits of badgers from digestive tracts from collected specimens. Mammals had the highest frequency of occurrence in the diet, with mice, ground squirrels, and rabbits being the most important food items.

304. Jobman, W. G. and M. E. Anderson. 1981. Current black-footed ferret range as indicated from a questionnaire survey. U.S. Fish and Wildlife Service, unpublished report, Pierre, S.D. 63 pp.

Surveys current (1981) black-footed ferret range based on reported sightings in 12 states (South Dakota) and Canada. Results indicate a reduction in the black-footed ferret range in most states.

305. Johnson, D. R. 1969. Returns of the American Fur Company, 1835-1839. Journal of Mammalogy 50:836-839.

Contains records of furs and skins received by the American Fur Company between 1835 and 1839 from Midwestern states. Includes records of swift fox and black-footed ferrets.

306. Johnson, D. R. 1975. *Peromyscus maniculatus* activity in a prairie dog town, Wind Cave National Park. Unpublished report, Augustana College, Sioux Falls, S.D. 9 pp.

Reports on live trapping deer mice on and off prairie dog towns. Vegetative characteristics of the 2 sites are presented.

307. Johnson, D. R. 1977. Biology of the porcupine (*Erethizon dorsatum*) in northwestern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 67 pp.

Presents information on home range size and habitats used by porcupines in Harding County. Includes a discussion on food habits, energetics, and the population dynamics of porcupines.

308. Johnson, G. D. 1966. Small mammals of the middle Oligocene of the big Badlands of South Dakota. Proceedings of the South Dakota Academy of Science 45:78-83.

Reports on 19 families and 22 genera of small mammal fossils found in the Badlands from the middle Oligocene period.

309. Johnston, T. 1984. Black Hills elk hunting. South Dakota Conservation Digest 51(5):25-27.

Popular account of elk hunting in the Black Hills with harvest results from previous years.

310. Jones, J. K., Jr. 1953. Geographic distribution of the pocket mouse, *Perognathus fasciatus*. University of Kansas Museum of Natural History 5:515-526.

Reviews various subspecies of the olive-backed pocket mouse. Provides morphological characteristics and distribution.

311. Jones, J. K., Jr., D. M. Armstrong, and J. R. Choate. 1985. Guide to mammals of the plains states. University of Nebraska Press, Lincoln and London. 371 pp.

Reference guide to the mammals of the plains states (including South Dakota).

312. Jones, J. K., Jr., D. M. Armstrong, R. S. Hoffmann, and C. Jones. 1983. Mammals of the northern Great Plains. University of Nebraska Press, Lincoln and London. 379 pp.

Detailed checklist of northern Great Plains mammals.

313. Jones, J. K., Jr. and J. R. Choate. 1978. Distribution of two species of long-eared bats of the genus *Myotis* on the northern Great Plains. Prairie Naturalist 10:49-52.

Proposes new distributions for long-eared and fringe-tailed myotis. Ranges are based on specimens collected from the northern great Plains, including parts of South Dakota.

314. Jones, J. K., Jr., J. R. Choate, and R. B. Wilhelm. 1978. Notes on the distribution of three species of mammals in South Dakota. Prairie Naturalist 10:65-70.

Updates distribution records for the eastern mole, woodchuck, and plains pocket gopher in South Dakota. Includes body weights, morphological characteristics, and collection sites of specimens.

315. Jones, J. K., Jr. and H. G. Genoways. 1967. New subspecies of the fringe-tailed myotis, *Myotis thysanodes*, from the Black Hills of South Dakota and Wyoming. Journal of Mammalogy 48:231-235.

Describes a new subspecies of the fringe-tailed myotis occurring in the Black Hills. Includes descriptions of capture sites, body measurements, and morphological characteristics.

316. Jones, J. K., Jr. and H. G. Genoways. 1967. Annotated checklist of bats from South Dakota. Transactions of the Kansas Academy of Science 70:184-196.

Provides morphological characteristics and information on collection sites of 11 species of bats from South Dakota.

317. Jones, J. K., Jr. and F. R. Henderson. 1963. Noteworthy records of foxes from South Dakota. Journal of Mammalogy 44:283.

Gives collection sites of red and gray foxes throughout South Dakota. These records extend the known ranges of both species in South Dakota.

318. Jones, J. K., Jr. and B. Mursaloglu. 1961. Geographic variation in the harvest mouse, *Reithrodontomys megalotis*, on the central Great Plains and in adjacent regions. University of Kansas Museum of Natural History 14:9-27.

Discusses geographical variations in western harvest mice based on body measurements and morphological characteristics. Lists collection sites from 8 states including South Dakota.

319. Jones, J. K., Jr. and R. L. Packard. 1958. *Myotis keenii septentrionalis* in South Dakota. Journal of Mammalogy 39:150.

Documents the presence of a Keen's myotis specimen from Custer County.

320. Keirans, J. E. and C. M. Clifford. 1983. *Ixodes* (*Pholeoixodes*) *eastoni* n. sp. (Acari: ixodidae), a parasite of rodents and insectivores in the Black Hills of South Dakota, USA. Journal of Medical Entomology 20:90-98.

Documents discovery of a new tick species in the Black Hills. Four of 7 species examined were parasitized by the tick.

321. Kennedy, J. F. 1992. Habitat selection by female white-tailed deer in the northern Black Hills, South Dakota and Wyoming. M.S. Thesis, South Dakota State University, Brookings. 65 pp.

Analyzes habitat selection at macro and micro habitat levels. Deer selected forested areas with >70% canopy cover in winter and agricultural lands in spring. Density of tall shrubs was an important characteristic of loafing sites in the spring.

322. Kennedy, J. F., J. A. Jenks, R. L. Jones, and K. J. Jenkins. 1995. Characteristics of mineral licks used by white-tailed deer (*Odocoileus virginianus*). American Midland Naturalist 134:324-331.

Describes soil and vegetative characteristics of mineral licks used by white-tailed deer in the Black Hills. Use of mineral licks was highest in spring and summer; they were not used in winter.

323. Kernohan, B. J. 1994. Winter/spring population characteristics of white-tailed deer in an agricultural/wetland complex in northeastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 98 pp.

Evaluates habitat use and sexual segregation of white-tailed deer at Sand Lake National Wildlife Refuge. Agricultural crops were preferred feeding areas in winter and spring. Deer exhibited high sexual segregation in the spring.

324. Kernohan, B. J., J. A. Jenks, and D. E. Naugle. 1994. Movement patterns of white-tailed deer at Sand Lake National Wildlife Refuge, South Dakota. Prairie Naturalist 26:293-300.

Tag returns documented the distance and direction traveled by white-tailed deer originally marked at Sand Lake National Wildlife Refuge. Movement patterns indicated that non-resident deer may be responsible for a significant proportion of crop depredation on adjacent private lands.

325. Kietzmann, G. E., Jr. 1987. Parasites of three rodent species from South Dakota and their distributions. Proceedings of the South Dakota Academy of Science 66:45-47.

Reports on examination of mammals from various counties in South Dakota for ectoparasites. Includes parasites found and host origin.

326. Kietzmann, G. E., Jr. 1987. Ectoparasites of black-tailed prairie dogs (*Cynomys ludovicianus*) from South Dakota. Journal of Wildlife Diseases 23:331-333.

Identifies 6 ectoparasite species from 40 black-tailed prairie dogs collected during the summers of 1982 and 1983. Abundance of parasites in relation to the date of collection is discussed.

327. Kietzmann, G. E., Jr. and E. J. Hugghins. 1984. Ectoparasites of white-tailed jack rabbits and eastern cottontail rabbits in South Dakota. Proceedings of the South Dakota Academy of Science 63:42-47.

Presents data on number of ectoparasites by species from rabbits collected throughout South Dakota.

328. Kietzmann, G. E., Jr. and E. J. Hugghins. 1986. Helminths of lagomorphs in South Dakota. Journal of Wildlife Diseases 22:276-278.

Provides data on 10 helminth species collected from 54 lagomorphs throughout South Dakota.

329. Kildaw, S. D. 1995. Effect of group size manipulations on the foraging behavior of black-tailed prairie dogs. Behavioral Ecology 6:353-358.

Discusses relationship between group size and feeding behavior of black-tailed prairie dogs at Wind Cave National Park, concluding that the feeding behavior of large groups led to a higher risk of predation than those feeding in small groups.

330. Kimball, J. W. 1948. Pheasant population characteristics and trends in the Dakotas. Transactions of the North American Wildlife and Natural Resource Conference 13:291-311.

Discusses the decline in pheasant populations throughout the Midwest. Identifies badgers and skunks as the principal nest predators in South Dakota.

331. King, J. A. 1951. Subspecific identity of the Black Hills flying squirrels (*Glaucomys sabrinus*). Journal of Mammalogy 32:469-470.

Presents specimen data and suggests Black Hills flying squirrels be treated under the subspecies *bangsi* instead of the previous subspecific classification of *canescens*. Measurement data are provided.

332. King, J. A. 1955. Social behavior, social organization, and population dynamics in a black-tailed prairie dog town in the Black Hills of South Dakota. Contributions from the Laboratory of Vertebrate Biology No. 67, University of Michigan, Ann Arbor. 123 pp.

Intensive 3-year study conducted at Wind Cave National Park of prairie dog behavior and population dynamics. Contains information on age structure, mortality, sex ratios, social organization, and numerous other topics.

333. Kingsley, N. H. 1919. Notes on some fossils of Harding County. Proceedings of the South Dakota Academy of Science 4:40-41.

Brief note of a cat skull found in Harding County identified as belonging to the saber-tooth cat family.

334. Kjellsen, M. L. 1988. Effects of introduced muskrat populations on emergent vegetation in South Dakota wetlands. M.S. Thesis, South Dakota State University, Brookings. 47 pp.

Evaluates the use of muskrats in opening dense stands of wetland vegetation. Concluded that the effectiveness of muskrats was highly variable.

335. Klukas, R. W. 1988. Management of prairie dog populations at Wind Cave National Park. Pp 50-52 *in* Eighth Great Plains Animal Damage Control Workshop, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Overview of prairie dog management at Wind Cave National Park. Emphasizes need for management-oriented research to assist park managers.

336. Kock, M. D. and J. Berger. 1987. Chemical immobilization of free-ranging North American bison (*Bison bison*) in Badlands National Park, South Dakota. Journal of Wildlife Diseases 23:625-633.

Evaluates, on bison, a new method of immobilizing large mammals, and gives data on immobilization and reversal times.

337. Kohler, P. 1950. Digestion studies with sheep and wild antelope on a sagebrush ration. M.S. Thesis, South Dakota State University, Brookings. 32 pp.

Presents data on the chemical composition, digestibility, and consumption rates of sagebrush by wild pronghorn and sheep. Pronghorn and sheep appeared to digest sagebrush with similar efficiency.

338. Kost, C. D. 1997. Estimation of predator densities in western South Dakota. M.S. Thesis, South Dakota State University, Brookings. 118 pp.

Evaluates catch-per-unit effort, scent-station, fecal line, and road-kill surveys for estimating predator densities. Fecal line surveys were more powerful at detecting changes in predator densities. Includes a population census of 29 vertebrate species observed on road-kill survey routes.

339. Kramlich, T. J. 1985. Evaluation of seasonal habitat use by white-tailed deer in eastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 36 pp.

Using radio telemetry, shows seasonal habitat use by white-tailed deer. Presents annual changes in habitat selection.

340. Kranz, J. J. and R. L. Linder. 1973. Value of Black Hills forest communities to deer and cattle. Journal of Range Management 26:263-265.

Describes use of pellet and chip counts to measure deer and cattle use of 3 habitat types (aspen, pine, mixed) in the Black Hills National Forest. Results indicated that aspen and mixed habitats were preferred.

341. Krueger, K. 1986. Feeding relationships among bison, pronghorn, and prairie dogs: an experimental analysis. Ecology 67:760-770.

Evaluates foraging relationships among bison, pronghorn, and prairie dogs at Wind Cave National Park. A mutually exclusive positive relationship existed between bison and prairie dogs.

342. Krueger, K. 1986. Interactions and activity patterns of bison and prairie dogs at Wind Cave National Park: implications for managers. Pp 203-208 *in* USDA Forest Service General Technical Report No. 212.

Advocates basic ecological research as a basis for management decisions affecting wildlife resources. Demonstrates how ecological research can be used by managers to benefit wildlife with examples from bison and prairie dog studies.

343. Kruse, C. D. 1993. Influence of predation on least tern and piping plover productivity along the Missouri River in South Dakota. M.S. Thesis, South Dakota State University, Brookings. 80 pp.

Describes the influence of predation on piping plover and least tern reproductive efforts. American crows, raccoons, and mink were associated with 98% of known nest losses.

344. Kuhlmann, K. 1956. Airplane in unit sampling of mule deer populations in Harding County, South Dakota. M.S. Thesis, Utah State Agricultural College, Logan. 64 pp.

Evaluates aerial unit sampling vs. belt transect sampling as a mule deer population census technique. Concluded that both were inadequate sampling methods and recommended pellet group counts, particularly in forested areas.

345. Larson, K. 1997. Faunal diversity and richness of natural, restored, dam-created, and borrow-pit wetlands in the prairie pothole region of eastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 87 pp.

Compares species richness of a variety of vertebrates (including mammals) among 4 categories of wetlands. Species richness of mammals did not differ among wetland types.

346. Lauzon, S. E. 1979. Taxonomic status of coyotes from western South Dakota. M.S. Thesis, South Dakota State University, Brookings. 29 pp.

Coyotes were collected from western South Dakota and the skulls examined for evidence of hybridization with domestic dogs. No hybrids were discovered in the study.

347. Lauzon, S. E. and F. Schitoskey, Jr. 1981. Taxonomic status of coyotes from western South Dakota. Proceedings of the South Dakota Academy of Science 60:123-134.

Investigates possible hybridization between coyotes and domestic dogs. No evidence of hybridization was found.

348. Layne, L. J. 1987. Habitat selection and sexual segregation of Rocky Mountain bighorn sheep in Custer State Park, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 69 pp.

Attempts to explain segregation of bighorn ram and ewe herds at Custer State Park. The hypothesis that sexual segregation occurred to minimize competition for resources was rejected, and an alternative hypothesis was suggested.

349. Layne, L. J. and T. R. McCabe. 1986. Use of invermectin to increase lamb survival in a herd of Rocky Mountain bighorn sheep. Pp 207-221 *in* Proceedings of the Fifth Biennial Symposium: North Wild Sheep and Goat Council, G. Joslin, ed.

Evaluates effectiveness of oral and injected treatments of ivermectin to treat bighorn ewes. Lungworm infection decreased in treated ewes and lamb survival increased.

350. Lee, O. B. 1962. Strange visitors. South Dakota Conservation Digest 29(2):21.

Documents a lynx in Yankton County and a wolverine in Dewey County. Both accounts are outside the normal distribution range for the species.

351. Lengkeck, D. 1984. Black-footed ferret program in South Dakota. Pp 21.1-21.4 *in* Black-footed Ferret Workshop Proceedings. Wyoming Game and Fish Department, Laramie. S. H. Anderson and D. B. Inkley, eds.

Presents the survey methods used in South Dakota to educate the public and solicit reports of black-footed ferret sightings. All reports are investigated and rated based on reporter reliability.

352. Licht, D. S. and S. H. Fritts. 1994. Gray wolf (*Canis lupus*) occurrences in the Dakotas. American Midland Naturalist 132:74-81.

Reports that 4 wolves were collected from South Dakota between 1981-1992. They probably dispersed from populations in northern Minnesota.

353. Linde, D. 1971. Big foot. South Dakota Conservation Digest 38(4):30-32.

Popular account of an unusually large bobcat harvested near Rockerville, S.D., in 1925.

354. Linde, D. 1974. Deer is a deer. South Dakota Conservation Digest 41(5):4-6.

Popular account describing the morphological characteristics of white-tailed and mule deer. Figures are included.

355. Lindell, J. R. 1971. Small mammal distribution in relation to marshland vegetation types in southeastern South Dakota. M.A. Thesis, University of South Dakota, Vermillion. 33 pp.

Six species were trapped in southeastern South Dakota during 1970. Species distributions in relation to habitat characteristics are presented.

356. Linder, R. L. 1984. Recovery team efforts (black-footed ferret). Pp 3.1-3.4 *in* Black-footed Ferret Workshop Proceedings. Wyoming Game and Fish Department, Cheyenne, S. H. Anderson and D. B. Inkley, eds.

Outlines objectives and plans of the black-footed ferret recovery team. Encourages additional searches be conducted to find new ferret populations within its former range.

357. Linder, R. L., R. B. Dahlgren, and C. N. Hillman. 1972. Black-footed ferret-prairie dog interrelationships. Pp 22-37 *in* Symposium on Rare and Endangered Wildlife of the Southwest United States. Albuquerque, N.M.

Examines the importance of prairie dogs to black-footed ferret ecology. Recommendations for ferret management are presented, including the conservation of prairie dog colonies and captive breeding programs for ferrets.

358. Linder, R. L. and C. N. Hillman. 1973. Proceedings of the black-footed ferret and prairie dog workshop. South Dakota State University, Brookings. 208 pp.

Contains 23 papers on prairie dogs and black-footed ferrets. Includes a bibliography on black-tailed prairie dog literature with 437 references.

359. Lockwood, T. 1974. Spirits trap sheep. South Dakota Conservation Digest 41(3):32-33.

Synopsis of problems (e.g., livestock grazing, disease, parasites) facing bighorn sheep reintroduced to Custer State Park and of current investigations into these problems.

360. Lokemoen, J. T. and H. F. Duebbert. 1976. Ferruginous hawk nesting ecology and raptor populations in northern South Dakota. Condor 78:464-470.

Eight mammal species were found in ferruginous hawk pellets. Mammals comprised 93% of the hawks' diet.

361. Long, C. A. and R. G. Severson. 1969. Geographical variation in the big brown bat in the north-central United States. Journal of Mammalogy 50:621-624.

Examines geographical variation in subspecies of the big brown bat. Specimens were collected throughout the Midwest. Primary differences were pelage color and skull length.

362. Loughry, W. J. 1988. Population differences in how black-tailed prairie dogs deal with snakes. Behavioral Ecology and Sociobiology 22:61-67.

Compares antipredator behaviors of a Texas prairie dog population which is experienced with snakes with behaviors of an inexperienced South Dakota population.

363. Loughry, W. J. 1989. Discrimination of snakes by two populations of black-tailed prairie dogs. Journal of Mammalogy 70:627-630.

Examines the ability of prairie dogs to discriminate between venomous and non venomous snakes, using prairie dogs from Texas (snakes common) and South Dakota (snakes uncommon). Behavioral differences between the 2 populations are discussed.

364. Loughry, W. J. 1992. Ontogeny of time allocation in black-tailed prairie dogs. Ethology 90:206-224.

Gives activity budgets of a black-tailed prairie dog colony at Wind Cave National Park, showing differences in activity patterns between mature and immature prairie dogs.

365. Loughry, W. J. and A. Lazari. 1994. Ontogeny of individuality in black-tailed prairie dogs, *Cynomys ludovicianus*. Canadian Journal of Zoology 72:1280-1286.

Describes the growth and development of individuality in prairie dogs from Wind Cave National Park. Prairie dogs could be distinguished from one another, but with relatively low efficiency.

366. Lovaas, A. L. 1972. Report on the prairie dogs at Wind Cave National Park. National Park Service, unpublished report. 19 pp.

Historical sketch of prairie dog population growth and dispersal at Wind Cave National Park. Includes distribution maps of rapidly expanding prairie dog towns.

367. Lovaas, A. L. 1973. Prairie dogs and black-footed ferrets in the National Parks. Pp 139-147 *in* Proceedings of the Black-footed Ferret and Prairie Dog Workshop. South Dakota State University, Brookings.

Discusses the presence of prairie dogs and black-footed ferrets in several national parks.

368. Lovaas, A. L. 1973. Cooperative elk trapping program in Wind Cave National Park. Wildlife Society Bulletin 1:93-100.

Presents the capture methods used to control an increasing elk population in Wind Cave National Park. Discusses the cooperation of federal agencies, the South Dakota Department of Game, Fish and Parks, and 2 tribes in the program.

369. Lovaas, A. L. and P. T. Bromley. 1972. Preliminary studies of pronghorn antelope-black-tailed prairie dog relations at Wind Cave National Park. Pp 115-156 *in* Proceedings of the Fifth Antelope States Workshop. Billings, Mont.

Tests the hypothesis that a sympatric relationship existed between prairie dog towns and pronghorn and that prairie dogs improved range condition for pronghorn. Nearly all the important food items for antelope were more abundant outside the prairie dog town than on the town, suggesting prairie dogs did not improve range condition for pronghorn.

370. Lund, G. F. 1974. Time and energy budgets by telemetry of heart rate from free ranging black-tailed prairie dogs in natural and model environments. Ph.D. Thesis, University of Iowa, Iowa City. 165 pp.

Uses telemetry to test heart rate as an index of metabolism for black-tailed prairie dogs. Time and energy budgets were compared between prairie dogs in a natural environment and in a laboratory.

371. Lund, G. F. and G. E. Folk, Jr. 1976. Simultaneous measurements of heart rate and oxygen consumption in black-tailed prairie dogs (*Cynomys ludovicianus*). Comparative Biochemical Physiology 55:207-210.

Examines relationship, using telemetry, between heart rate and oxygen consumption by black-tailed prairie dogs.

372. Luttschwager, K. A. and K. F. Higgins. 1992. Nongame bird, game bird, and deer use of Conservation Reserve Program fields in eastern South Dakota. Proceedings of the South Dakota Academy of Science 71:31-36.

Describes use of a cable-chain device to find wildlife in Conservation Reserve Program fields in 5 eastern South Dakota counties. White-tailed deer were flushed in 67% of the fields sampled.

373. MacCracken, J. G. and D. W. Uresk. 1984. Coyote foods in the Black Hills, South Dakota. Journal of Wildlife Management 48:1420-1423.

Examines seasonal food habits of Black Hills coyotes from 1981-82. Mammals comprised 93% of the diet; no seasonal differences in diet was detected.

374. MacCracken, J. G., D. W. Uresk, and R. M. Hansen. 1985. Burrowing owl foods in Conata Basin, South Dakota. Great Basin Naturalist 45:287-290.

Lists food items in burrowing owl diets. Consumption of mammals was highest during spring and early summer.

375. MacCracken, J. G., D. W. Uresk, and R. M. Hansen. 1985. Vegetation and soils of burrowing owl nest sites on Conata Basin, South Dakota. Condor 87:152-154.

Discusses burrowing owl use of black-tailed prairie dog burrows for nesting and escape cover. Characteristics of burrows used by the owls are presented.

376. Madsen, S. C. and E. J. Hugghins. 1979. Studies on sarcosystis of wild ungulates in South Dakota. Proceedings of the South Dakota Academy of Science 58:169.

Abstract only. Examines wild ungulates for sarcosystis and discusses the role of selected carnivores as hosts. Reports that elk are heavily infected with sarcosystis and that coyotes are highly susceptible hosts.

377. Maher, C. R. 1996. Correlates of variable spatial organization in two pronghorn populations. Intermountain Journal of Science 2:52.

Abstract only. Summarizes male pronghorn behavior and spatial organization of a population from Wind Cave National Park and another from Montana.

378. Martin, R. A. 1971. New records of the dwarf shrew from South Dakota. Journal of Mammalogy 52:835-836.

Documents the collection of 2 dwarf shrew specimens. One specimen was trapped and the other was identified from an owl pellet.

379. Martin, R. A. 1973. Description of a new genus of weasel from the Pleistocene of South Dakota. Journal of Mammalogy 54:924-929.

Describes a new genus of weasel from fossil records. The specimen morphologically resembled true weasels; however, the author does not recognize the species as a true mustelid descendant.

380. Martin, R. A. and B. G. Hawks. 1972. Hibernating bats of the Black Hills of South Dakota: distribution and habitat selection. Bulletin of the New Jersey Academy of Science 17:24-30.

Reports that 6 species of bats hibernate in the Black Hills while 4 other species are migratory. Hibernating behavior is discussed.

381. Mattson, T. A. 1995. Owl predation on a silver-haired bat. Prairie Naturalist 27:127.

Observational account of a silver-haired bat that was preyed upon by a small, unidentified owl in the Black Hills.

382. Mattson, T. A. and M. A. Bogan. 1993. Survey of bats and bat roosts in the southern Black Hills in 1993. National Park Service unpublished report, Interior, S.D. 14 pp.

Describes mist net surveys and roost searches to locate maternity roosts in the southern Black Hills. Maternity roosts of the target species, *Plecotus townsendii*, were not found.

383. Mattson, T. A., S. W. Buskirk, and N. L. Stanton. 1996. Roost sites of the silver-haired bat (*Lasionycteris noctivagans*) in the Black Hills, South Dakota. Great Basin Naturalist 56:247-253.

Describes radio-marking of 16 silver-haired bats to locate and characterize roost sites in the Black Hills. All maternal roosts were found in tree cavities in areas with relatively high snag densities, indicating snags play an important role in maintaining silver-haired bat populations.

384. Mattson, T. A., N. L. Stanton, and S. W. Buskirk. 1994. Roosting ecology of the silver-haired bat (*Lasionycteris noctivagans*) in the Black Hills of South Dakota. National Park Service, unpublished report, 34 pp.

Describes the investigation of roosting ecology of the silver-haired bat via radio telemetry. Maternity roosts were predominately located within tree cavities of ponderosa pine snags, suggesting snags play an important role in maintaining silver-haired bat populations.

385. McClanahan, L. F. 1981. Biological assessment of the Wind Cave National Park prairie dog management program with respect to the endangered peregrine falcon. National Park Service, unpublished report. 3 pp.

Outlines possible detrimental effects of prairie dog control measures on peregrine falcons. Peregrine falcons are not considered to be impacted by prairie dog control measures at Wind Cave National Park.

386. McClanahan, L. F., D. M. Shilts, and R. W. Klukas. 1981. Environmental assessment: prairie dog management, Wind Cave National Park, Hot Springs, South Dakota. National Park Service unpublished report. 11 pp.

Environmental assessment of prairie dog management practices at Wind Cave National Park. Positive and negative environmental impacts of management strategies are discussed.

387. McClenaghan, L. R., Jr., J. Berger, and H. D. Truesdale. 1990. Founding lineages and generic variability in plains bison (*Bison bison*) from Badlands National Park, South Dakota. Conservation Biology 4:285-289.

Measures levels of genetic variability among bison at Badlands National Park. The population is descended from 2 founder groups of 6 and 3 individuals that had been separated geographically for >64 years.

388. McDaniel, B. 1979. Host records of ectoparasites from small mammals of South Dakota. Southwestern Naturalist 24:689-691.

Documents occurrence and distribution of 4 mite species found on various small mammal species collected in South Dakota.

389. McDaniel, L. L. 1975. Current distribution of swift fox (*Vulpes velox*) on the northern Great Plains. American Society of Mammalogists Annual Meeting, Missoula, Mont.

Provides observations and specimen records of the swift fox in the northern plains. Provides management guidelines to increase swift fox populations.

390. McDonald, P. M. 1987. Relationships of female distributions and vegetation to mate access and mating tactics of males in a low density population of pronghorns. M.S. Thesis, University of Southwestern Louisiana, Lafayette. 94 pp.

Evaluates vegetative composition in different male pronghorn territories. Differences in vegetative composition were related to breeding tactics of pronghorn.

391. McDonald, P. M. and G. E. Plumb. 1996. Black-footed ferret reintroduction in the Conata Basin/Badlands of southwestern South Dakota. Rangelands 18:222-224.

Synopsis of black-footed ferret reintroduction efforts at Conata Basin, discusses successes and obstacles of the program.

392. McHugh, T. 1958. Social behavior of the American buffalo (*Bison bison bison*). Zoologia: New York Zoological Society 43:1-40.

Reviews bison behavior, based on observations from Yellowstone, Jackson Hole, and Wind Cave National Park. Topics include herd coordination, herd composition, dominance hierarchy, sexual behavior, and family relations.

393. McPhillips, K. B. 1983. Characteristics and success of South Dakota archery deer hunters. M.S. Thesis, South Dakota State University, Brookings. 49 pp.

Summarizes a survey of South Dakota bow hunters following the 1981 archery deer season. Data on bowhunter profiles, hunter success, and crippling loss are provided.

394. McPhillips, K. B., R. L. Linder, and W. A. Wentz. 1985. Nonreporting, success, and wounding by South Dakota deer bowhunters. Wildlife Society Bulletin 13:395-398.

Gives results of 2 questionnaires used to survey South Dakota bowhunters in 1981. Reported are return rates, bowhunter success, and reported wounding rates. Suggestions to increase report card return rates are provided.

395. Meeks, W. A. 1996. Nongame vertebrate survey of Sand Lake National Wildlife Refuge, Brown County, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 107 pp.

Describes snap and pitfall trap inventory of small mammals in 5 primary habitat types at Sand Lake National Wildlife Refuge. Correspondence analysis was used to determine the primary habitats for the 11 species captured.

396. Melius, M. M. 1987. Plants and animals rare in South Dakota. Ornate Press, Hermosa, South Dakota. 92 pp.

Lists South Dakota's rare species grouped by major regions (East River, West River, Black Hills, Missouri River). Includes tips for proper identification, likely habitats, and seasons for observing these animals.

397. Merriam, C. H. 1889. Description of a new marmot for the Black Hills of Dakota. North American Fauna 2:7-9.

Describes a yellow-bellied marmot specimen collected in 1889 from Custer County. Measurements and weight are given.

398. Merriam, C. H. 1891. Description of a new *Evotomys* from the Black Hills of South Dakota. North American Fauna 5:119.

Describes two specimens of a red-backed vole collected in the Black Hills in 1888. Measurements and general characteristics are provided.

399. Merriam, C. H. 1901. Prairie dog of the Great Plains. Pp 257-270 *in* Yearbook of the U.S. Department of Agriculture. Government Printing Office, Washington, DC.

Describes general habits of the prairie dog. Discusses early prairie dog control programs.

400. Messenger, N. C. 1978. Diet and nutrition of the pronghorn antelope. M.S. Thesis, South Dakota State University, Brookings. 53 pp.

Evaluates through fecal analysis the food habits of pronghorn. In vivo and in vitro studies were conducted to examine the digestibility of foods consumed by pronghorn.

401. Messenger, N. C. and F. Schitoskey, Jr. 1980. Components and digestibility of pronghorn diets. Proceedings of the South Dakota Academy of Science 59:194-204.

Presents data on the year-round diet of pronghorn in Harding County and the digestibility of some food items. Big sagebrush was the only plant consumed all months of the year.

402. Miller, B., C. Wemmer, D. E. Biggins, and R. Reading. 1990. Proposal to conserve black-footed ferrets and the prairie ecosystem. Environmental Management 14:763-769.

Discusses the conflict between prairie dog control and black-footed ferret management and offers recommendations on an integrated management plan to resolve the conflict.

403. Miller, G. S. and R. Kellogg. 1955. List of North American recent mammals. United States National Museum Bulletin 205:1-954.

Gives mammal species cataloged at the U.S. National Museum through January 1953, including 17 from South Dakota.

404. Millspaugh, J. J. 1995. Seasonal movements, habitat use patterns, and the effects of human disturbances on elk in Custer State Park, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 184 pp.

Describes the movements and habitat use of elk in relation to human disturbances such as hiking trails, horse trails, and vehicle roads/trails. Generally, elk avoided activity areas when they were occupied by humans and selected the areas during non-occupied times (both daily and seasonally).

405. Millspaugh, J. J. and G. C. Brundige. 1996. History and management of Custer State Park elk. South Dakota Conservation Digest 63(1):5-9.

Summarizes elk population changes and management objectives at Custer State Park.

406. Millspaugh, J. J. and G. C. Brundige. 1996. Estimating elk weight from chest girth. Wildlife Society Bulletin 24:58-61.

Presents regression equations, based on elk harvested at Custer State Park, for estimating the weight of elk from chest girth measurements.

407. Millspaugh, J. J., G. C. Brundige, and J. A. Jenks. 1994. Summer elk trapping in South Dakota. Prairie Naturalist 26:125-129.

Evaluates summer trapping of elk in Custer State Park with modified clover traps baited with salt. Chances of capturing bulls, cows, and calves are based on calculated herd ratios.

408. Millspaugh, J. J., G. C. Brundige, and J. A. Jenks. 1995. Immobilization of Rocky Mountain elk with telazol and xylazine hydrochloride, and antagonism by yohimbine hydrochloride. Journal of Wildlife Diseases 31:259-262.

Presents the efficacy and standard dosages of telazol and xylazine hydrochloride to immobilize trapped elk and the feasibility of yohimbine hydrochloride to reverse the anesthesia.

409. Moe, M. S. 1974. Habitat preferences and food habits of striped skunks in eastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 34 pp.

Reports that idle grasslands and rock piles were important habitats for skunks. Seasonal food habits based on digestive tract analysis are presented.

410. Mogen, K. 1977. History of animal management at Wind Cave National Park. Wind Cave National Park, unpublished report. 33 pp.

Contains a brief history of wildlife management at Wind Cave National Park with emphasis placed on bison, elk, and pronghorn. An annual population census of bison, elk, and pronghorn in the park is presented (1914-1976).

411. Moore, G. L., Y. A. Greichus, and E. J. Hugghins. 1968. Insecticide residues in pronghorn antelope of South Dakota. Bulletin of Environmental Contamination and Toxicology 3:269-273.

Analyzes renal fat collected from 45 pronghorn for 10 insecticides including DDT and DDD. Residue concentrations were found but did not exceed federal guidelines.

412. Mora, D. 1987. Bats of Jewel Cave. Jewel Cave National Monument, Custer, South Dakota, unpublished report. 30 pp.

Reviews past bat studies in the Black Hills including a description or each species and a taxonomic key.

413. Morrill, K. D. 1963. Variation in two species of mice of the genus *Peromyscus* in Clay County, South Dakota. M.A. Thesis, University of South Dakota, Vermillion. 51 pp.

Compares 12 body measurements for deer and white-footed mice. Hind foot length was the best morphologic characteristic that differentiated the two species.

414. Morrison, E. E. and H. T. Gier. 1978. Lungworms in coyotes in the Great Plains. Journal of Wildlife Diseases 14:314-316.

Reports the examination of coyotes originating from 8 central states for 2 species of lungworms. Infection rates are reported for each lungworm species.

415. Moulthrop, P. N. 1936. *Myotis volans interior* in South Dakota. Journal of Mammalogy 17:413-414.

First documentation of a long-legged myotis in South Dakota. Specimen was collected in Custer County.

416. Mullican, T. R. 1992. Distribution of the pygmy shrew in South Dakota. Prairie Naturalist 24:257-259.

Presents distribution map of pygmy shrew collection sites in eastern South Dakota.

417. Mullican, T. R. 1993. Survey of small mammals on state Game Production Areas and other public lands. South Dakota Department of Game, Fish and Parks unpublished report. 12 pp.

Inventories small mammals in areas of eastern/western South Dakota. A single specimen of a Merriams shrew was captured in Butte County, the first known capture of this species in South Dakota.

418. Mullican, T. R. 1994. First record of Merriam's shrew from South Dakota. Prairie Naturalist 26:173.

Documents the first record of a Merriam's shrew from Butte County, South Dakota. Provides the location of capture, habitats of the area, and body measurements of the specimen.

419. Mullican, T. R. 1994. Survey of small mammals on two state-owned areas of South Dakota. South Dakota Department of Game, Fish and Parks, unpublished report. 5 pp.

Describes use of Sherman live traps, museum special and pitfall traps to inventory small mammals use of 4 major habitats. Southern red-backed voles were the most common species captured.

420. Mullican, T. R. 1995. Survey of small mammals on two state game production areas and private lands on South Dakota. South Dakota Department of Game, Fish and Parks, unpublished report. 6 pp.

Inventories 15 species of small mammals captured during this population study. White-footed and deer mice were the most common species captured. Captures of 1 pygmy shrew and 1 bushy-tailed woodrat were reported.

421. National Park Service. 1992. Badlands - checklist of amphibians, reptiles, and mammals. Badlands National Park, Interior, S.D. 2 pp.

Lists mammals that could be observed at Badlands National Park. Species are rated as common, uncommon, rare, or unknown status.

422. Naugle, D. E. 1994. Density, movements, and habitat use of white-tailed deer at Sand Lake National Wildlife Refuge, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 71 pp.

Reports on monitored deer movements and habitat use at Sand Lake National Wildlife Refuge. Also compares deer density estimates using infrared and spotlighting surveys. Spotlight surveys generally underestimated deer densities.

423. Naugle, D. E., J. A. Jenks, and B. J. Kernohan. 1994. Farm operator attitudes toward white-tailed deer at Sand Lake National Wildlife Refuge, South Dakota. Prairie Naturalist 26:201-207.

Compares farm operator attitudes toward deer depredation between areas with high and low deer densities. Concludes that farm operators' attitudes toward deer are influenced by deer density.

424. Naugle, D. E., J. A. Jenks, and B. J. Kernohan. 1996. Use of thermal-infrared sensing to estimate density of white-tailed deer. Wildlife Society Bulletin 24:37-43.

Compares spotlight surveys to infrared surveys for estimating densities of white-tailed deer at Sand Lake National Wildlife Refuge. Infrared sensing was a more reliable density estimator than spotlight surveys, at a much greater cost.

425. Naugle, D. E., B. J. Kernohan, and J. A. Jenks. 1995. Seasonal capture success and bait use of white-tailed deer in an agricultural-wetland complex. Wildlife Society Bulletin 23:198-200.

Presents summer and winter trapping success and bait use by white-tailed deer at Sand Lake National Wildlife Refuge. Recommends trapping in mid to late August to maximize fawn capture and reduce damage to developing antlers. Corn was a better bait than salt during summer.

426. Nelson, B. E. 1995. Use of a geographic information system for determining white-tailed deer habitat use in the northern Black Hills of South Dakota and Wyoming. M.S. Thesis, South Dakota State University, Brookings. 198 pp.

Compares habitat use by radio-collared white-tailed deer to random home ranges and point locations to evaluate GIS as a management/research tool. Results supported current management practices of increasing forage production near fawning, escape, and thermal cover. Indicates GIS maps with adequate detail can aid managers.

427. Nelson, R. L. 1972. Development of techniques for distribution of baits to raccoon for chemosterilant studies. M.S. Thesis, South Dakota State University, Brookings. 30 pp.

Evaluates effectiveness of using eggs to distribute chemosterilants to raccoons and skunks; 88% of raccoons and 29% of skunks consumed the baited eggs.

428. Nelson, R. L. and R. L. Linder. 1972. Percentage of raccoons and skunks reached by egg baits. Journal of Wildlife Management 36:1327-1329.

Evaluates use of eggs to deliver chemsterilants to raccoons and skunks during summer 1970. Results indicated that 88% of raccoons and 29% of skunks collected had consumed the baited eggs.

429. Newmark, W. D. 1986. Species-area relationship and its determinants for mammals in western North American national parks. Biological Journal of the Linnean Society 28:83-98.

Examines relationship between mammal species richness and 5 variables (area, elevation, vegetative density, cover types, latitude) in 24 western national parks. Area and elevation range were important predictors of species richness.

430. Nomsen, D. E. 1982. Food habits and placental scar count of bobcats in South Dakota. M.S. Thesis, South Dakota State University, Brookings. 31 pp.

Analysis of digestive tracts indicated that rabbits, mice, and deer were the primary food items of bobcats. Placental scar counts averaged 2.74 for the female bobcats examined.

431. Novak, M., J. A. Baker, M. E. Obbard, and B. Ballock. 1987. Wild furbearer management and conservation in North America. Ministry of Natural Resources, Ontario. 1,150 pp.

Presents data on the natural history, distribution, and ecology of furbearers in North America, with several references to South Dakota furbearers. Includes individual chapters for each species, harvest information, food habits, etc. An excellent source for species specific information.

432. O'Harra, C. C. 1929. Custer's Black Hills expedition of 1874. Black Hills Engineer 17:221-287.

Historical account of General Custer's 1874 expedition into the Black Hills. Includes a photograph of a grizzly bear shot by General Custer.

433. Oehler, M. W., J. A. Jenks, and R. T. Bowyer. 1995. Antler rubs by white-tailed deer: the importance of trees in a prairie environment. Canadian Journal of Zoology 73:1383-1386.

Reports that deer in prairie environments selected aromatic trees for scent marking and large diameter trees for antler rubs. Suggests the encroachment of trees in prairie environments has facilitated the range expansion of white-tailed deer.

434. Olson, R. 1977. Hypogean ecology of Jewel Cave National Monument, Custer County, South Dakota. M.S. Thesis, University of Illinois, Champaign-Urbana. 96 pp.

Addresses bat ecology in relation to a cave in western South Dakota.

435. Osborn, R. G. 1994. Winter diet and nutritional condition of white-tailed deer in the northern Black Hills, South Dakota. M.S. Thesis, South Dakota State University, Brookings. 164 pp.

Evaluates the physical and nutritional condition of white-tailed deer in the Black Hills related to winter range condition. Deer winter condition fluctuated with snow depth.

436. Oswald, C. D. and L. D. Flake. 1994. Bait formulation effectiveness in live-trapping small mammals in eastern South Dakota. Proceedings of the South Dakota Academy of Science 73:101-108.

Presents the effectiveness of 7 bait formulations to capture small mammals. Greatest numbers of small mammal captures were from grain/meat and seed/aroma/fruit/meat formulations.

437. Oswald, C. D. and L. Grissett. 1992. Geographic variation in renal function in white-footed mice. American Zoologist 32:61A.

Abstract only. Compares white-footed mice from South Dakota and Pennsylvania for variations in renal function between the 2 areas. Urine concentrating ability is correlated to habitat aridity.

438. Ouellette, D. E. and J. F. Heisinger. 1980. Reingestion of feces by *Microtus pennsylvanicus*. Journal of Mammalogy 61:336-368.

Describes laboratory experiment of feces reingestion by meadow voles collected in Clay County. Observations indicated that reingestion occurred during inactive periods.

439. Over, W. H. and E. P. Churchill. 1945. Mammals of South Dakota. University of South Dakota, Vermillion. 56 pp.

Gives species accounts of more than 100 mammals inhabiting or formerly inhabiting South Dakota. Provides basic descriptions, habitats, and behaviors.

440. Painter, E. L., J. K. Detling, and D. A. Steingraeber. 1993. Plant morphology and grazing history: relationships between native grasses and herbivores. Vegetatio 106:37-62.

Tests for interpopulation differences in the morphology of native grasses which corresponded to varying grazing histories. Reports evidence of ecotypic differentiation of native grasses with some differentiation related to grazing history.

441. Peck, S. 1959. Faunal survey of Wind Cave, South Dakota. Wind Cave National Park unpublished report. 7 pp.

Presents data from an early population inventory of Wind Cave. Mammals captured included 3 bat species, deer mice, and woodrats.

442. PeFaur, J. E. and R. S. Hoffmann. 1974. Notes on the biology of the olive-backed pocket mouse (*Perognathus fasciatus*) on the northern Great Plains. Prairie Naturalist 6:7-15.

Evaluates the variations in the olive-backed pocket mouse in the northern plains, using collected specimens. Includes brief summaries on reproduction, food habits, and population dynamics.

443. PeFaur, J. E. and R. S. Hoffmann. 1975. Studies of small mammal populations at three sites on the northern Great Plains. Pp 1-27 *in* Occasional Papers, Museum of Natural History, University of Kansas, Lawrence.

Compares small mammal populations at 3 sites in the northern plains. Data on movement patterns, population densities, biomass, and species richness are presented, and capture techniques were evaluated.

444. Pendleton, G. W. 1982. Selected annotated bibliography of mink behavior and ecology. Technical Bulletin No. 3, South Dakota Cooperative Wildlife Research Unit, South Dakota State University, Brookings. 33 pp.

Annotated bibliography containing 84 references on mink literature with an author-subject index. Some of the studies were conducted in South Dakota.

445. Pendleton, G. W. 1983. Northern pocket gopher from Clark County. Prairie Naturalist 15:8.

Documents the capture of 2 northern pocket gophers outside the known range for the species.

446. Pendleton, G. W. 1984. Small mammals in prairie wetlands: habitat use and the effects of wetland modifications. M.S. Thesis, South Dakota State University, Brookings. 54 pp.

Presents results of a population inventory and habitat use study of small mammals in prairie wetlands of eastern South Dakota. Of 11 mammal species trapped, meadow voles and deer mice were most abundant.

447. Pendleton, G. W. and R. P. Davison. 1982. Relative efficiency of three small-mammal traps in prairie wetlands. Prairie Naturalist 14:9-12.

Compares the efficiency among the museum special, victor rat, and Sherman live traps for capturing small mammals. Museum special traps had the highest capture efficiency.

448. Perisho, E. C. 1912. Notes on animals and plants of economic importance. Pp 123-126 *in* Geography, Geology and Biology of Mellette, Washabaugh, Bennett and Todd Counties, South-Central South Dakota. South Dakota Geological and Biological Survey Bulletin 5.

Gives general observations of wildlife in a 4-county area of south-central South Dakota and the economic importance of the wildlife during the early 1900s.

449. Petersburg, S. J. 1973. Bull bison behavior at Wind Cave National Park. M.S. Thesis, Iowa State University, Ames. 302 pp.

Investigates the behavior and movements of bull bison at Wind Cave National Park. Presents observations on social organization, agonistic behavior, rut and sexual behavior, general distributions, and movements.

450. Petry, E. J. and S. S. Visher. 1926. South Dakota. Pp 548-556 *in* Naturalist's Guide to the Americas. Williams and Wilkins, Baltimore, V. E. Shelford, ed.

Describes the flora and fauna of South Dakota in the 1920s with notes on mammal species in the major physiographic regions.

451. Phillips, R. L. 1996. Evaluation of 3 types of snares for capturing coyotes. Wildlife Society Bulletin 24:107-110.

Evaluates the effectiveness of 3 types of lethal neck snares for capturing coyotes in Montana and the Dakotas. Capture success and mortality rates of both target and non-target species are presented for each snare type.

452. Pirtle, E. C. and J. M. Layton. 1961. Epizootic hemorrhagic disease in white-tailed deer—characteristics of the South Dakota strain of virus. American Journal of Veterinary Research 22:104-108.

Reports that captive deer (38) were infected with the EHD virus; only 1 survived. Virus characteristics examined included gross pathology, viability, effectiveness of immunization, and viral effects to other animals.

453. Plumb, G. E. 1991. Foraging ecology of bison and cattle on a northern mixed prairie. Ph.D. Dissertation, University of Wyoming, Laramie. 148 pp.

Compares the diets and grazing impacts of bison and cattle on the Ordway Memorial Prairie in McPherson County. Bison and cattle consumed similar food items; however, bison were the most appropriate large herbivore based on their social structure and environmental tolerances.

454. Plumb, G. E., B. Bessken, and P. E. Marinari. 1995. Reopening a niche at Badlands National Park: the black-footed ferret. Park Science 15(2):1,16-18.

Outlines the black-footed ferret reintroduction efforts at Conata Basin within Badlands National Park and discusses future management needs.

455. Plumb, G. E. and J. L. Dodd. 1994. Foraging ecology of bison and cattle. Rangelands 16:107-109.

Evaluates bison and cattle herbivory on a mixed grass prairie in South Dakota and discusses the advantages and disadvantages of using bison or cattle as management tools.

456. Polley, H. W. and J. K. Detling. 1988. Herbivory tolerance of *Agropyron smithii* populations with different grazing histories. Oecologia 77:261-267.

Compares western wheatgrass tolerance to herbivory using plants from a heavily grazed prairie dog town and a lightly grazed area with no towns.

457. Popp, J. K. 1981. Range ecology of bison on mixed-grass prairie at Wind Cave National Park. M.S. Thesis, Iowa State University, Ames. 59 pp.

Evaluates seasonal food habits and range-use patterns of bison. Also presents differences in habitat use among bison social groups and age classes.

458. Progulske, D. R. 1966. South Dakota raccoons. South Dakota Farm and Home Research 17:12-14.

Evaluates seasonal food habits of raccoons, using stomach and fecal analysis. Results indicated that feeding patterns differed between wet and dry years.

459. Progulske, D. R. 1969. Observations of a penned, wild-captured black-footed ferret. Journal of Mammalogy 50:619-621.

Reports on the social, feeding, and aggressive behavior of a captured black-footed ferret.

460. Pybus, M. J. and H. J. Shave. 1984. *Muellerius capillaris* (Mueller, 1889) (Nemotoda: Protostrongylidae): an unusual finding in Rocky Mountain bighorn sheep (*Ovis canadensis*) in South Dakota. Journal of Wildlife Diseases 20:284-288.

First documentation of the *Muellerius capillaris* lungworm in bighorn sheep. Other lungworms commonly reported to infect bighorn sheep were not present in fecal or lung samples.

461. Rabenberg, R. and E. B. Hart. 1979. Aging South Dakota red foxes by analysis of canine cementum annuli and enamel lines. Proceedings of the North Dakota Academy of Science 33:97.

Gives dental aging characteristics for red foxes from South Dakota. Suggests an enamel line measurement of 2 mm as the cut-off between adult and juvenile red foxes.

462. Ranney, R. 1966. Local distribution of two species of *Peromyscus* in Yankton County, South Dakota. M.A. Thesis, University of South Dakota, Vermillion. 33 pp.

Evaluates habitat use for deer mice and white-footed mice, using small mammal trapping. Home range estimates are reported for mice with multiple captures.

463. Raventon, E. 1984. White-tail deer. South Dakota Conservation Digest 51(6):30-31.

Popular article describing the general life history of the white-tailed deer.

464. Raventon, E. 1986. Black-footed ferret. South Dakota Conservation Digest 53(6):26-27.

Popular article about the endangered black-footed ferret in South Dakota. Discusses general ecology and biology.

465. Reagan, A. B. 1907. Animals, reptiles, and amphibians of the Rosebud Indian Reservation. Transactions of the Kansas Academy of Science 21:163-164.

Species account of animals (26 mammals) found on the Rosebud Indian Reservation in the early 1900s. The abundance of some species is also noted.

466. Reed, D. E., C. A. Daley, and H. J. Shave. 1976. Reovisrus-like agent associated with neonatal diarrhea in pronghorn antelope. Journal of Wildlife Diseases 12:488-491.

Describes a reovirus-like agent found in pronghorn fawns from Butte and Meade counties related to the neonatal calf diarrhea reovirus. Speculates that pronghorn fawns contracted the infection from cattle.

467. Ricciuti, E. R. 1991. Comeback kid. Wildlife Conservation 94:52-61.

Presents the importance of prairie dogs to the livelihood of black-footed ferrets. Describes the black-footed ferret recovery plan with proposed reintroductions in South Dakota.

468. Rice, L. A. 1980. Influences of irregular dental cementum layers on aging deer incisors. Journal of Wildlife Management 44:266-268.

Identifies 3 types of irregular dental cementum layers. Age estimation bias is reported for each type of irregularity.

469. Rice, L. A. 1982. Studying elk. South Dakota Conservation Digest 45(5):8-9.

Summarizes habitats used by 50 radio-marked elk in the Black Hills. Discusses important habitats and management requirements of the elk herd.

470. Richardson, A. H. 1971. Rocky Mountain goat in the Black Hills. South Dakota Department of Game, Fish and Parks Bulletin No. 2 WR-145:43. 24 pp.

Outlines the biology and ecology of the mountain goat in the Black Hills, including morphological characteristics, reproductive biology, food habits, and parasites.

471. Richardson, A. H. and L. E. Petersen. 1974. History and management of South Dakota deer. South Dakota Department of Game, Fish and Parks Bulletin No. 5. 113 pp.

Thorough review of the history and management of deer in South Dakota. Contains 18 chapters covering topics on distribution, habitats, natural history, and hunting.

472. Riedel, J. 1977. How to trap raccoons. South Dakota Conservation Digest 44(4):18-21.

Discusses the population growth of raccoons and methods used to trap them.

473. Riedel, J. 1988. Snaring as a beaver control technique in South Dakota. Pp 212-214 *in* Eighth Great Plains Animal Damage Control Workshop, Rapid City, S,D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Describes how to set a snare for capturing beaver. Includes pointers on snare location, placement, lure types, and weather influences.

474. Rissky, R. W. 1962. Parasites of the plains pocket gopher, *Geomys bursarius* (Shaw) in Clay County, South Dakota. Proceedings of the South Dakota Academy of Science 41:83-90.

Reports that 7 taxa of parasites infected the 50 plains pocket gophers examined. Most were ectoparasites.

475. Roemer, D. M. and S. C. Forrest. 1996. Prairie dog poisoning in the northern Great Plains: an analysis of programs and policies. Environmental Management 20:349-359.

Discusses the negative impacts of prairie dog control programs by private individuals, state, and federal agencies on the prairie ecosystem. Recommends terminating prairie dog control operations.

476. Rose, B. J. 1973. History of black-tailed prairie dogs in South Dakota. Pp 76-78 *in* Proceedings of the Black-footed Ferret and Prairie Dog Workshop. South Dakota State University, Brookings, R. L. Linder and C. N. Hillman, eds.

Summarizes management, control methods, and population estimates of prairie dogs in South Dakota since the 1920s.

477. Rothstein, A. 1988. Social organization in juvenile bison bulls (*Bison bison*): non-linear dominance and dyadic associations. Ph.D. Thesis, The City University of New York. 99 pp.

Describes, in detail, the social behavior and organization of juvenile bison bulls at Wind Cave National Park. Male bison development reflected the social structure of the adult bulls.

478. Rothstein, A. and J. G. Griswold. 1991. Age and sex preferences for social partners by juvenile bison bulls, *Bison bison*. Animal Behaviour 41:227-237.

Uses observations of juvenile bison to test hypotheses concerning the function of juvenile social interactions. Juvenile interactions functioned as motor training and learning experience rather than competition for resources.

479. Rumble, M. A. 1982. Biota of uranium mill tailings near the Black Hills. Pp 278-292 *in* Proceedings of the Annual Conference of the Western Association of Fish and Wildlife Agencies, Las Vegas, Nev.

Reports on study of plants and animals using a reclaimed uranium mill tailing site. Five species of small mammals were trapped on the reclaimed sites, with western harvest mice the most abundant. Radiation exposure for small mammals on the reclaimed sites was higher than at the control site.

480. Rumble, M. A. 1986. Radiation dosimetry on revegetated uranium mill tailings in western South Dakota. Northwest Science 60:145-149.

Describes tests for differences in gamma radiation exposure to small mammals among 3 sites with varying depths and types of topsoil. Small mammals received an average exposure rate of gamma radiation higher than that recommended by the U.S. Department of Health, Education, and Welfare.

481. Sargeant, A. B., S. H. Allen, and D. H. Johnson. 1981. Determination of age and whelping dates of live red fox pups. Journal of Wildlife Management 45:760-765.

Evaluates 3 techniques for aging red fox pups. Tables and figures are presented that back date fox pups to whelping date using hind foot measurements and pelage colors.

482. Sargeant, A. B., R. J. Greenwood, M. A. Sovada, and T. L. Shaffer. 1993. Distribution and abundance of predators that affect duck production - prairie pothole region. U.S. Fish and Wildlife Service Publication 194. 96 pp.

Shows relative abundance and distribution of 9 potential duck nest predators in the prairie pothole region. Various factors influencing the abundance and distribution of nest predators in the prairie pothole region are also discussed.

483. Sayler, R. D., M. A. Willms, and N. R. Seabloom. 1988. Wildlife resources and avian migration chronology on northwestern Minnesota and northeastern South Dakota. Research Rept. No. 38. Institute for Ecological Studies, University of North Dakota, Grand Forks. 80 pp.

Briefly summarizes mammals present at a proposed U.S. Navy radar installation site in Marshall County. Contains a bibliography of natural resource information for northeastern South Dakota.

484. Schantz, V. S. 1946. New badger from South Dakota. Proceedings of the Biological Society of Washington 59:81-82.

Reports on the identification of a "new" subspecies (*dacotensis*) of badger from western South Dakota. Differences in body measurements and characteristics are discussed.

485. Schantz, V. S. 1951. Records of the least weasel, *Mustela rixosa*, in South Dakota. Journal of Mammalogy 32:225-226.

Provides collection sites and body measurements for least weasels collected in eastern South Dakota.

486. Schantz, V. S. 1953. Additional records of the spotted skunk in South Dakota. Journal of Mammalogy 34:124-125.

Documents the collection and observation of spotted skunks from several locations throughout South Dakota.

487. Schara, R. 1967. Too few mountains, too many goats. South Dakota Conservation Digest 34(1):22-24.

Gives account of the mountain goat population increase in the Black Hills since introduction in the 1920s. Discusses the population's impact on vegetation in mountain goat habitat.

488. Schenbeck, G. L. 1981. Management of black-tailed prairie dogs on the National Grasslands. Pp 207-213 *in* Fifth Great Plains Animal Damage Control Workshop. Lincoln, Neb., R. M. Timm and R. J. Johnson, eds.

Describes specific management problems associated with controlling black-tailed prairie dog populations while retaining adequate habitat for black-footed ferrets. Due to the rapid repopulation of treated towns, the control program is not cost effective. Alternative management strategies are presented.

489. Schenbeck, G. L. 1985. Black-tailed prairie dog management on the northern Great Plains: new challenges and opportunities. Pp 28-33 *in* Seventh Great Plains Wildlife Damage Control Workshop. San Antonio, Tex., D. B. Fagre, ed.

Reviews habitat relationships and management techniques for black-tailed prairie dogs. Prescribes a combination of rodenticides and altering livestock grazing practices.

490. Schitoskey, E. C. 1980. Helminths of South Dakota coyotes. M.S. Thesis, South Dakota State University, Brookings. 44 pp.

Reports results of 343 coyote carcass necropsies and parasite exams in which 16 parasite species were collected. Infection rates for each species are presented.

491. Schitoskey, E. C. and R. L. Linder. 1981. Helminths of South Dakota bobcats. Proceedings of the South Dakota Academy of Science 60:135-141.

Reports that for 51 bobacats collected between 1977-79, 13 helminth species were identified.

492. Schitoskey, E. C. and F. Schitoskey, Jr. 1980. Helminths of South Dakota coyotes. Proceedings of the South Dakota Academy of Science 59:205-211.

Reports that in western South Dakota coyotes examined, 16 helminth species were found to infect the coyotes and 99% of the sample (290 individuals) had at least 1 species present.

493. Schitoskey, F., Jr. 1980. Ecological energetics and relationships in a mixed grass ecosystem. South Dakota State University Cooperative Wildlife Research Unit Contract No. 14, Brookings. 148 pp.

Presents a checklist and gives seasonal abundance of terrestrial vertebrates found in a mixed-grass ecosystem, to be used as baseline data for monitoring human-induced environmental impacts. Includes a thorough mammal census with special sections on the biology of porcupine and pronghorn.

494. Schitoskey, F., Jr. and R. L. Linder. 1978. Use of wetlands by upland wildlife. Proceedings of the National Symposium on Wetlands, Minneapolis, Minn. 5 pp.

Summarizes the use of wetlands by upland wildlife and includes a white-tail deer study in South Dakota. Wildlife benefits include food, escape cover, and protection from severe weather.

495. Schneeweis, J. C. 1969. Food habits study of whitetail deer in the northern Black Hills. M.S. Thesis, South Dakota State University, Brookings. 59 pp.

Reports on the food habits of white-tailed deer in the Black Hills. Snow depth influenced forage selection, with Oregon grape, bearberry, and common juniper being important food items.

496. Schneeweis, J. C., K. E. Severson, L. E. Petersen, T. E. Schenck,III, R. L. Linder, and A. H. Richardson. 1972. Food habits of deer in the Black Hills. Agricultural Experiment Station Bulletin 606, South Dakota State University, Brookings. 35 pp.

Describes seasonal food habits for white-tailed and mule deer in the northern and southern Black Hills. Composition and frequency of plant species consumed are presented.

497. Seal, U. S., E. T. Thorne, M. A. Bogan, and S. H. Anderson. 1989. Conservation biology and the black-footed ferret. Yale University Press, New Haven and London. 302 pp.

Assesses the problems associated with black-footed ferret survival and recovery efforts. Includes references to South Dakota's remnant populations and early captivity studies.

498. Searls, D. A. 1974. Influence of vegetation on the distribution of small mammals on a Waterfowl Production Area. M.S. Thesis, South Dakota State University, Brookings. 47 pp.

Evaluates distribution and abundance of small mammals for 3 cover types. Vegetation density, not plant species, was important to small mammal populations.

499. Severinghaus, W. D. 1977. Description of a new subspecies of prairie vole, *Microtus ochrogaster*. Proceedings of the Biological Society of Washington 90:49-54.

Describes a new subspecies (*M. o. minor*) of prairie vole whose range includes southwestern South Dakota.

500. Severson, K. E. and A. V. Carter. 1978. Movement and habitat use by mule deer in the northern Great Plains, South Dakota. Pp 466-468 *in* Proceedings of the First International Rangeland Congress. Society for Range Management, Denver.

Covers use of telemetry and color-coded collars to determine mule deer home ranges, dispersal, and use of 12 habitats.

501. Severson, K. E. and F. R. Gartner. 1972. Problems in commercial hunting systems: South Dakota and Texas compared. Journal of Range Management 25:342-345.

Discusses the problems of commercial hunting systems in South Dakota and Texas. Hunting regulations, proximity of public lands, hunter demand, and quality of game crop were considered the principal factors affecting the success/failure of commercial hunting.

502. Severson, K. E. and J. J. Kranz. 1978. Management of bur oak on deer winter range. Wildlife Society Bulletin 6:212-216.

Evaluates nutritional value of bur oak to white-tailed deer in the Black Hills. Recommends selective cutting of bur oak stands to provide a forage complex for white-tailed deer.

503. Severson, K. E., H. E. Messner, and D. R. Dietz. 1972. Two-headed white-tailed deer fetus. American Midland Naturalist 88:464-465.

Describes a 2-headed deer fetus. Measurements, photographs, and x-rays are presented.

504. Sharps, J. C. 1977. Northern swift fox in South Dakota. Pp 117-124 *in* Proceedings of the Third Great Plains Wildlife Damage Control Workshop.

Discusses the endangered swift fox in Shannon County. Presents physical and behavioral characteristics of captured foxes. Outlines future management, plans including possible biological control of black-tailed prairie dogs and a captive rearing program.

505. Sharps, J. C. 1978. Swift fox. South Dakota Conservation Digest 45(1):20-21.

Popular review of swift fox status in South Dakota and the importance of prairie dog towns to the success of the species.

506. Sharps, J. C. 1979. Swift fox - endangered species. Unknown Source.

Pamphlet describing the threatened status of the swift fox in South Dakota. Includes brief life history.

507. Sharps, J. C. 1984. Northern swift fox investigations, 1977-1981. South Dakota Department of Game, Fish and Parks Report No. 85-11. 26 pp.

Provides results of a 5-year investigation of the swift fox in western South Dakota. Describes habitats used and reintroduction efforts.

508. Sharps, J. C. 1988. Politics, prairie dogs, and the sportsman. Pp 117-118 *in* Eighth Great Plains Animal Damage Control Workshop, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

A sportsman's perspective of prairie dog management on South Dakota's national grasslands. Advocates increasing prairie dogs on the grasslands and presents information on control costs and the loss of economic and biological benefits.

509. Sharps, J. C. 1989. Swift fox inventory. Final report to the Rocky Mountain Forest and Range Experiment Station. 21 pp.

Describes methods used to inventory swift fox populations in the Buffalo Gap National Grasslands. Results and discussion of the population inventory are presented.

510. Sharps, J. C. and T. A. Benzon. 1984. Compiled list of South Dakota wildlife. South Dakota Department of Game, Fish and Parks, Rapid City, S.D.. 27 pp.

Checklist of South Dakota's mammals, birds, reptiles, amphibians, and fishes.

511. Sharps, J. C. and D. W. Uresk. 1990. Ecological review of black-tailed prairie dogs and associated species in western South Dakota. Great Basin Naturalist 50:339-345.

Reviews the importance of prairie dog colonies to the prairie ecosystem and discusses prairie dog control programs in relation to the livestock industry. Contains a list of wildlife species associated with prairie dog colonies.

512. Sharps, J. C. and M. F. Whitcher. 1983. Swift fox reintroduction techniques. South Dakota Department of Game, Fish and Parks, Rapid City. 31 pp.

Presents methods for captive rearing of swift foxes. Techniques for releasing captive foxes are addressed. Telemetry was used to monitor the dispersal and mortality rates of released foxes.

513. Shaw, H. G. 1996. Cougar in the west. Pp 159-162 *in* Eastern Cougar Conference Proceedings. American Ecological Research Institute.

Discusses the status of cougars in western states with reference to a resident cougar population in the Black Hills. Calls for a standardized technique for monitoring population trends.

514. Sheets, R. G. 1970. Ecology of the black-footed ferret and the black-tailed prairie dog. M.S. Thesis, South Dakota State University, Brookings. 42 pp.

Evaluates black-footed ferret food habits using scat recovered from prairie dog burrows. Prairie dog behavior and burrow systems are described.

515. Sheets, R. G. 1972. Trap for capturing black-footed ferrets. American Midland Naturalist 88:461-462.

Describes a technique for live-trapping black-footed ferrets.

516. Sheets, R. G. and R. L. Linder. 1969. Food habits of the black-footed ferret (*Mustela nigripes*) in South Dakota. Proceedings of the South Dakota Academy of Science 48:58-61.

Determines the food habits of an adult female black-footed ferret and her 4 young in Mellette County. Scat analysis indicated > 80% of the remains were from prairie dogs.

517. Sheets, R. G., R. L. Linder, and R. B. Dahlgren. 1971. Burrow systems of prairie dogs in South Dakota. Journal of Mammalogy 52:451-453.

Reports the characteristics and measurements of black-tailed prairie dog burrows and discusses underground chamber construction.

518. Sheets, R. G., R. L. Linder, and R. B. Dahlgren. 1972. Food habits of two litters of black-footed ferrets in South Dakota. American Midland Naturalist 87:249-251.

Reports on excavations of black-tailed prairie dog burrows; 82 black-footed ferret scats were recovered. Prairie dogs comprised 86% of the remains.

519. Schenck III, T. E. 1971. Food habits of deer in the southern Black Hills as determined by the point technique. M.S. Thesis, South Dakota State University, Brookings. 46 pp.

Reports on seasonal food habits of white-tailed deer in the Black Hills. Relative importance of food items by season (fall, winter, summer) is presented.

520. Shown, D. A. 1982. Effects of prescribed burning on bird and small mammal communities in the grasslands of Wind Cave National Park. M.S. Thesis, Michigan Technological University, Houghton. 94 pp.

Evaluates effects of prescribed burning on small mammal populations. Of 10 captured small mammal species, 13-lined ground squirrels and deer mice were the most abundant. Thorough literature review on the effects of fire.

521. Shult, M. J. 1972. American bison behavior patterns at Wind Cave National Park. Ph.D. Dissertation, Iowa State University, Ames. 178 pp.

Describes bison behavior at Wind Cave National Park. Topics include cow-calf relationships, sexual behavior, social organization, and food habits.

522. Sikarskie, J. G., T. Van Veen Schillhorn, D. E. Villrey, and M. D. Kock. 1989. Comparative serum selenium values for ranched and free-ranging American bison. Journal of Zoo and Wildlife Medicine 20:34-38.

Compares selenium values of selenium deficient ranch bison and free ranging bison from Badlands National Park. Also examined possible effects of selenium on capture myopathy. Recommends supplementing selenium for ranched bison. Capture methods did not affect selenium concentration.

523. Smith, L. M. 1962. Ecotones and variation in the genus *Peromyscus*. M.A. Thesis, University of South Dakota, Vermillion. 43 pp.

Reports on trapping to assess deer and white-footed mouse populations in grassland-forest ecotones in Clay County. Habitat characteristics were evaluated at each trap site.

524. Sonntag, M. L. 1977. Aspects of the social behavior of the coyote (*Canis latrans*): a preliminary field study and analysis. M.A. Thesis, University of Pennsylvania, Philadelphia. 82 pp.

Analyzes behavior of single, paired, and larger groups of coyotes. Contains detailed discussion of coyote vocalizations.

525. Sovada, M. A., A. B. Sargeant, and J. W. Grier. 1995. Differential effects of coyotes and red foxes on duck nest success. Journal of Wildlife Management 59:1-9.

Compares nest success of ducks over a 3-year period in areas where coyotes were the primary canid to areas where red foxes were the primary canid. Nest success was higher in the coyote study area. The presence of other potential nest predators in both areas was also evaluated.

526. Sparrowe, R. D. 1966. Population distribution and mobility of deer in eastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 81 pp.

Reports annual movements and habitat use of white-tailed deer via observations and telemetry. Winter herd counts were inaccurate because of herd instability. Recommends deer management units be based on natural boundaries and not political boundaries.

527. Sparrowe, R. D. and P. F. Springer. 1970. Seasonal activity patterns of white-tailed deer in eastern South Dakota. Journal of Wildlife Management 34:420-431.

Reports on telemetry and observations to monitor the activity patterns of white-tailed deer in the vicinity of the Big Sioux River. Home range areas in summer, fall, and winter are evaluated.

528. Stebler, A. M. 1939. Ecological study of the mammals of the Badlands and the Black Hills of South Dakota and Wyoming. Ecology 20:382-393.

Census of mammals within vegetation associations in the Badlands and Black Hills regions.

529. Steigers, W. D., Jr. 1981. Habitat use and mortality of mule deer fawns in western South Dakota. Ph.D. Thesis, Brigham Young University, Provo, Utah. 206 pp.

Assesses use of telemetry to track activity patterns and mortality of mule deer fawns. Habitats used and causes of mortality are identified.

530. Stromberg, M. R. and M. S. Boyce. 1986. Systematics and conservation of the swift fox, *Vulpes velox*, in North America. Biological Conservation 35:97-110.

Describes 18 morphological characteristics that discriminate between subspecific classifications of the swift fox. The data set includes specimens from South Dakota. Subspecific status is not justified even though there is significant geographic variation between the subspecies.

531. Summers, C. A. 1976. Key to microscopic fragments of plant tissue in prairie dog stomachs and food habits of prairie dogs in South Dakota. M.S. Thesis, South Dakota State University, Brookings. 129 pp.

Descrubes diet of prairie dogs in southwest South Dakota from stomach and fecal analysis. Contains a key and pictures to aid in the identification of plants occurring on prairie dog towns.

532. 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.

Analyzes prairie dog diets from stomach and fecal samples from 2 towns in western South Dakota. Data on food items consumed are presented for the 2 methods.

533. Sweeting, J. D. 1977. Population, home range, and dispersal of red foxes in east-central South Dakota. M.S. Thesis, South Dakota State University, Brookings. 68 pp.

Reports that juvenile male foxes dispersed greater distances than juvenile females. Mean fox home range was 648 ha. Also discusses density and mortality factors of foxes in eastern South Dakota.

534. Tallman, D. A. and R. Edens. 1982. First documented record of the moose in South Dakota. Prairie Naturalist 14:99.

Documents the presence of 2 moose at Sand Lake National Wildlife Refuge on June 29, 1980, with additional reports in the area in June and July of the same year. The authors presume that the animals traveled from North Dakota via the James River.

535. Taylor, R. J. 1991. Mammalian predator community of Wind Cave National Park. National Park Service Report No. PX 1200-8-0837. 35 pp.

Inveestigates the seemingly low species diversity and abundance in the carnivore community of Wind Cave National Park. Reports that the carnivore community is less diverse than surrounding areas and presents alternative hypothesis for the disparity.

536. Thilenius, J. F. 1972. Classification of deer habitat in the ponderosa pine forest of the Black Hills, South Dakota. USDA Forest Service Report RM-91, Ft. Collins, Colo. 28 pp.

Uses cluster analysis to classify the Black Hills ponderosa pine forest into 13 habitat units. Pellet group counts were used to infer preference/avoidance of the habitat units.

537. Thorne, E. T., W. O. Hickey, and S. T. Stewart. 1985. Status of California and Rocky Mountain bighorn sheep in the United States. Pp 56-81 *in* Fourth Biennial Northern Wild Sheep and Goat Council Proceedings, M. Hoefs, ed.

Summarizes status and management of California and Rocky Mountain bighorn sheep in 13 western states. Presents data on the location and size of herds within each state (South Dakota).

538. Tieszen, L. L., S. R. Archer, and R. W. Klukas. 1988. Vegetation units at Wind Cave National Park for use in stable isotopic interpretations of diets. Proceedings of the South Dakota Academy of Science 67:84-99.

Reports the potential use of C_{13} isotopes collected from herbivore fossils to reconstruct past vegetation communities.

539. Tietjen, H. P., J. F. Glahn, and K. A. Fagerstone. 1978. Aerial photogrammetry: a method for defining black-tailed prairie dog colony dynamics. PP 244-247 *in* PECORA IV, Symposium on Applications of Remote Sensing Data to Wildlife Management. Sioux Falls, S.D.

Assesses use of aerial photography to monitor prairie dog towns. Concluded that this method was useful for monitoring changes in colony size and locations.

540. Tietjen, H. P. and G. H. Matschke. 1982. Aerial prebaiting for management of prairie dogs with zinc phosphide. Journal of Wildlife Management 46:1108-1112.

Tests the efficacy of 3 treatment regimes, including aerial prebaiting, for controlling prairie dogs. Reports that aerial prebaiting followed by hand-applied surface baiting provided effective control and reduced the time, labor, and expense of current methodologies.

541. Tigner, J. R. and W. C. Aney. 1993. Report of northern Black Hills bat survey. USDA Forest Service unpublished report. 147 pp.

Surveys the Black Hills for bat activity patterns and habitats important to selected bat species. Ten species of bats were identified. Buildings were heavily used by *Myotis* spp during the summer.

542. Tischendorf, J. W. and F. R. Henderson. 1996. Puma in the central mountains and Great Plains. Pp 167-169 *in* Eastern Cougar Conference Proceedings. American Ecological Research Institute.

Reviews history of cougars in the central Plains. Discusses sources of dispersal and evidence of breeding populations, including a small breeding population in the Black Hills.

543. Trautman, C. G., L. F. Fredrickson, and A. V. Carter. 1974. Relationship of red foxes and other predators to populations of ring-necked pheasants and other prey, South Dakota. Transactions of the North American Wildlife and Natural Resource Conference 39:241-252.

Tests the effects of intensive predator control on pheasant populations and other prey at 4 sites in eastern South Dakota. Suggests that predator control may be one management technique to increase game populations.

544. Trautman, C. G., P. F. Springer, R. L. Drieslein, and W. L. Tucker. 1966. Fox-pheasant relationships in South Dakota, 1965. Research Progress Report, South Dakota State University, Brookings. 28 pp.

Report first-year data on fox-pheasant relationships. Pheasants composed the greatest volume of the fox diet. Experimental removal of foxes had little or no effect on pheasant populations.

545. Tschetter, B. J. 1988. Estimates of South Dakota prairie dog acreages, 1987. South Dakota Department of Game, Fish and Parks Report No. 88-01, Pierre. 11 pp.

Provides a 1987 estimate of 184,186 acres of prairie dog colonies in South Dakota, down from a 1980 estimate of 700,000 acres. Most of the acreage occurred on Indian reservations (76%) followed by privately owned (19%) and public owned (5%) lands.

546. Turner, R. W. 1971. Mammals of the Black Hills of South Dakota and Wyoming. Ph.D. Thesis, University of Kansas, Lawrence. 336 pp.

Inventories 63 mammal species found in the Black Hills. Includes a discussion on factors influencing the distribution and speciation of Black Hills mammals.

547. Turner, R. W. 1974. Mammals of the Black Hills of South Dakota and Wyoming. University of Kansas Museum of Natural History Miscellaneous Publication No. 60. University of Kansas, Lawrence. 178 pp.

Inventories 63 mammal species found in the Black Hills. Includes a discussion on factors influencing the distribution and speciation of Black Hills mammals.

548. Turner, R. W. and W. H. Davis. 1970. Bats from the Black Hills of South Dakota. Transactions of the Kansas Academy of Science 72:360-364.

Summarizes distribution and abundance of 10 species of bats in the Black Hills. Collection sites are indicated.

549. Turner, R. W. and J. K. Jones, Jr. 1968. Additional notes on bats from western South Dakota. Southwestern Naturalist 13:444-447.

Summarizes the collection of bats in western South Dakota. Data on collection sites and abundance of 8 species are presented.

550. Tuttle, M. D. and L. R. Heaney. 1974. Maternity habits of *Myotis leibii* in South Dakota. Bulletin of the Southern California Academy of Science 73:80-83.

Presents data on 12 roost sites of the small-footed myotis in the Badlands National Park. Body measurements and weights are given for juveniles.

551. U. S. Department of Agriculture, 1925. South Dakota. Pp 47-52 *in* Status of the Pronghorn Antelope, 1922-1924. USDA Bulletin 1,346. 64 pp.

Evaluates status of South Dakota pronghorn in the early 1920s based on field observations. It was estimated that 680 pronghorn resided in 11 areas of western South Dakota. Predators were largely blamed for the poor success of the herds.

552. Uresk, D. W. 1984. Black-tailed prairie dog food habits and forage relationships in western South Dakota. Journal of Range Management 37:325-329.

Determines food habits of prairie dogs from 3 sites in western South Dakota from fecal analysis. Reports that prairie dogs are selective feeders.

553. Uresk, D. W. 1985. Effects of controlling black-tailed prairie dogs on plant production. Journal of Range Management 38:439-442.

Compares plant production among nongrazed, prairie dog grazed, and cattle/prairie dog grazed areas following prairie dog removal. Plant responses for the 3 treatments are presented.

554. Uresk, D. W. 1987. Relation of black-tailed prairie dogs and control programs to vegetation, livestock, and wildlife. Pp 312-323 *in* Integrated Pest Management on Rangeland: Shortgrass Prairie Perspective. Westview Press, Boulder, Colo., J. L. Capinera, ed.

Reviews prairie dog control methods and the effect of prairie dogs on plant production. Also discusses livestock-prairie dog relationships and wildlife associated with prairie dog colonies.

555. Uresk, D. W. and A. J. Bjugstad. 1980. Prairie dogs as ecosystem regulators on the northern high plains. Pp 91-94 *in* Seventh North American Prairie Conference Proceedings. Southwest Missouri State University, Springfield.

Evaluates effect of cattle and prairie dog grazing on plant production over a 4-year period in western South Dakota. Prairie dog densities were higher in areas grazed by cattle.

556. Uresk, D. W. and A. J. Bjugstad. 1981. Effects of prairie dogs and cattle on vegetation of the northern high plains. South Dakota Stockgrower, Rapid City, S.D.

Compares variation in total plant production in response to 4 combinations of prairie dog-cattle grazing treatments. Plant production was highest in areas grazed by prairie dogs followed by a combination of prairie dogs and cattle. Non-grazed and cattle-only grazed areas had the lowest plant production.

557. Uresk, D. W. and D. R. Dietz. 1980. White-tailed deer habitat studies, an overview. P 20 *in* Proceedings: Black Hills Deer Management Workshop. Rapid City, S.D., D. W. Uresk and L. Fager, eds.

Measures dry matter production, crude protein, calcium, phosphorus, and digestibility of deer forage. Suggests that crude protein was more limiting to deer range carrying capacity than any other nutritional or energy component.

558. Uresk, D. W., R. M. King, A. D. Apa, M. S. Deisch, and R. L. Linder. 1986. Efficacy of zinc phosphide and strychnine for black-tailed prairie dog control. Journal of Range Management 39:298-299.

Evaluates effectiveness of 3 rodenticides on prairie dogs. All 3 treatments reduced the number of active burrows. Zinc phosphide was the most effective.

559. Uresk, D. W., R. M. King, A. D. Apa, M. S. Deisch, and R. L. Linder. 1988. Rodenticidal effects of zinc phosphide and strychnine on nontarget species. Pp 57-63 *in* Eighth Great Plains Wildlife Damage Workshop Proceedings, Rapid City, S.D. USDA Forest Service General Technical Report RM-154, D. W. Uresk, G. L. Schenbeck, and R. Cefkin, eds.

Evaluates effect of zinc phosphide and strychnine on nontargeted species by fecal counts and small mammal trapping. Neither rodenticide affected cottontail or jackrabbit densities, but zinc phosphide reduced deer mouse densities.

560. Uresk, D. W. and D. G. Lowrey. 1984. Cattle diets in the central Black Hills of South Dakota. Pp 50-52 *in* Great Plains Agricultural Council Publication No. 111.

Determines monthly cattle diets from fecal analysis. Bur oak and snowberry, important deer browse species, were consumed by cattle in the fall.

561. Uresk, D. W., J. G. MacCracken, and A. J. Bjugstad. 1981. Prairie dog density and cattle grazing relationships. Pp 199-201 *in* Fifth Great Plains Wildlife Damage Control Workshop Proceedings. University of Nebraska, Lincoln, R. M. Timm and R. J. Johnson, eds.

Indicates that prairie dogs were more abundant in areas heavily grazed by cattle. Provides recommendations for controlling prairie dogs on rangelands.

562. Uresk, D. W. and D. D. Paulson. 1988. Estimated carrying capacity for cattle competing with prairie dogs and forage utilization in western South Dakota. Pp 387-390 *in* USDA Forest Service General Technical Report RM-166, Symposium on Management of Amphibians, Reptiles, and Small Mammals in North America.

Evaluates grazing competition between cattle and prairie dogs on the Buffalo Gap National Grasslands. Provides recommendations for stocking rates and identifies key forage species.

563. Uresk, D. W. and G. L. Schenbeck. 1987. Effect of zinc phosphide rodenticide on prairie dog colony expansion as determined from aerial photography. Prairie Naturalist 19:57-61.

Describes use of aerial photography to assess the effectiveness of zinc phosphide on controlling prairie dogs. Untreated colonies increased 65% while treated colonies increased 1%. Recommends applying zinc phosphide every 3 years to stop colony growth.

564. Uresk, D. W. and J. C. Sharps. 1986. Denning habitat and diet of the swift fox in western South Dakota. Great Basin Naturalist 46:249-253.

Reports that swift fox den sites were located on hilltops in short and mid-grass prairie. Scat analysis indicated that mammals were the most frequent food item (49%), followed by insects (27%), plants (13%), and birds (6%).

565. Van Ballenberghe, V. 1975. Swift fox: South Dakota's rarest animal? South Dakota Conservation Digest 42(1):28-29.

Discusses the endangered status of the swift fox in South Dakota.

566. Van Ballenberghe, V. 1975. Recent records of the swift fox (*Vulpes velox*) in South Dakota. Journal of Mammalogy 56:525.

Documents recent swift fox captures in several counties in South Dakota. First records of swift fox in South Dakota for over 60 years, suggesting an expanding population.

567. Van Deusen, J. L. and C. A. Myers. 1962. Porcupine damage in immature stands of ponderosa pine in the Black Hills. Journal of Forestry 60:811-813.

Reports survey of 56 ponderosa pine stands in the Black Hills for porcupine damage, which occurred in 10% of trees examined were damaged.

568. Vanden Berge, R. J. 1976. Population status of beaver on the free-running Missouri River in southeastern South Dakota. M.S. Thesis, South Dakota State University, Brookings. 51 pp.

Reports age and sex ratios from a sample of beavers captured along the Missouri River. Compared population densities of beavers in stabilized and unstable sections of the river.

569. Vanden Berge, R. J. and P. A. Vohs, Jr. 1977. Population status of beaver on the free-running Missouri River in southeastern South Dakota. Proceedings of the South Dakota Academy of Science 56:230-236.

Gives sex and age ratio for 162 beaver trapped over a 2-year period from the Missouri River. Colony densities were compared between stabilized and unstable sections of the river.

570. Vanderbush, L. J. 1974. Antelope projects in South Dakota, 1973. Pp 9-14 *in* Proceedings of the Sixth Antelope States Workshop. Salt Lake City, D. M. Beale, ed.

Presents overview of pronghorn management in South Dakota during 1973. Management activities discussed include population surveys, harvest surveys, determination of sex ratios, and setting of hunting seasons.

571. Vanderhye, A. V. R. 1985. Interspecific nutritional facilitation: do bison benefit from feeding on prairie dog towns? M.S. Thesis, Colorado State University, Ft. Collins. 44 pp.

(Document was not available due to recent flooding at the lending library.)

572. Various. 1980. Proceedings: Black Hills deer management workshop, Rapid City, S.D. 39 pp.

Summarizes 13 papers presented at the Black Hills deer management workshop, 1980. Topics include historical management, winter range, population dynamics, and public attitudes.

573. Varland, K. L. 1976. Techniques for elk immobilization with succinylcholine chloride. Proceedings of the Iowa Academy of Science 82:194-197.

Describes various techniques used to immobilize elk at Wind Cave National Park. Data on dosages used, immobilization times, cost, and effectiveness of each technique used are provided.

574. Varland, K. L. 1976. Herd organization and movements of elk in Wind Cave National Park, South Dakota. M.S. Thesis, Iowa State University, Ames. 128 pp.

Describes use of color-coded telemetry collars to monitor elk movements in Wind Cave National Park. Movement data indicated the presence of 3 distinct groups of elk within the park.

575. Varland, K. L., A. L. Lovaas, and R. B. Dahlgren. 1978. Herd organization and movements of elk in Wind Cave National Park, South Dakota. U.S. National Park Service, Natural Resource Report No. 13. 28 pp.

Describes use of telemetry to monitor the movements and herd characteristics of elk in Wind Cave National Park. Provides management recommendations for the 3 distinct herds.

576. Vetter, E., Jr. 1974. Population dynamics of small mammals and arthropods in an old field. Proceedings of the South Dakota Academy of Science 53:287.

Summarizes, briefly, a study which estimated the population size of small mammals. No results were presented.

577. Visher, S. S. 1914. Preliminary list of mammals of Harding County. Pp 87-92 *in* Biology of Harding County, Northwestern South Dakota. South Dakota Geological and Biological Survey Bulletin 6.

Presents 47 species of mammals that occurred in Harding County in the early 1900s. Includes general descriptions of abundance and habitats.

578. Waite, B. C. 1984. Beaver. South Dakota Conservation Digest 51(1):21-25.

Popular article describing the biology and ecology of beaver in South Dakota. Discusses both positive and negative impacts of beaver activities to human populations.

579. Weber, S. K. 1992. Differential reproductive response of female deer mice to short photoperiod. General Honors Thesis, Kent State University, Kent, Ohio. 29 pp.

Examines the effects of short photoperiod on reproductive response, using lab mice with origins from Wind Cave National Park. Reproductive tract weight was less in mice exposed to short photoperiods vs. control mice.

580. Wentz, W. A. 1979. Endangered and threatened species of South Dakota. South Dakota Cooperative Wildlife Research Unit, South Dakota State University, Brookings. 10 pp.

Defines "endangered" and "threatened" species, includes a 1979 list of species protected in South Dakota.

581. Whicker, A. D. and J. K. Detling. 1988. Modification of vegetation structure and ecosystem process by North American grassland mammals. Pp 301-316 *in* Plant Form and Vegetation Structure. SPB Academic Publishing, The Hague, The Netherlands, M. J. A. Werger, P. J. M. van de Aart, H. J. During, and J. T. A. Verhoeven, eds.

Investigates the effects of prairie dog grazing on the structure and function of grasslands over time and how other herbivores (bison, pronghorn) respond to the induced changes.

582. Whicker, A. D. and J. K. Detling. 1988. Ecological consequences of prairie dog disturbances. Bioscience 38:778-785.

Discusses effects of prairie dog grazing and burrowing on prairie grasslands. Reports that bison select prairie dog colonies for grazing during the growing season.

583. White, E. M. 1985. Antiquity, original size, and location of prairie dog towns in Wind Cave National Park. National Park Service Report No. CX-1200-4-A040. 30 pp.

Estimates age of prairie dog towns in 2 different areas of Wind Cave National Park using soil characteristics from individual mounds within the 2 areas. Estimates that the towns are between 400 and 7,000 years old.

584. White, E. M. 1986. Changes in prairie dog mound soil properties with increasing age. Wind Cave National Park Project No. PX1560-5-0117. 15 pp.

Uses amount of soil removed by burrowing and the phosphate content of the soil around prairie dog mounds to estimate mound age.

585. White, J. A. 1952. A new chipmunk (Genus *Eutamias*) from the Black Hills. University of Kansas Museum of Natural History 5:259-262.

Describes a new subspecies of the least chipmunk from the Black Hills. Weights and morphology are presented with descriptive comparisons to similar subspecies.

586. Wilhelm, R. B., J. R. Choate, and J. K. Jones, Jr. 1981. Mammals of Lacreek National Wildlife Refuge, South Dakota. Special Publications of the Museum, Number 17, Texas Tech University, Lubbock. 37 pp.

Presents account of 39 mammal species and their habitats at Lacreek National Wildlife Refuge. Measurements of selected species are provided. Also gives density estimates of small mammals captured on trapping grids.

587. Williams, D. F. and H. G. Genoways. 1979. Systematic review of the olive-backed pocket mouse, *Perognathus fasciatus* (Rodentia, Heteromyidae). Carnegie Museum of Natural History 48:73-102.

Examines the geographic variation within the subspecies of the olive-backed pocket mouse, using morphological characteristics. Possible hybridization with the plains pocket mouse was also discussed.

588. Williams, E. S., J. Cavender, C. Lynn, K. Mills, C. Nunamaker, and A. Boerger-Fields. 1991. Survey for diseases of carnivores in the Conata Basin and Badlands, South Dakota. South Dakota Department of Game, Fish and Parks final report. 35 pp.

Reports the collection and testing of carnivores from the Conata Basin for various diseases, specifically for canine distemper. Results indicated some carnivores had been previously exposed to distemper, but no evidence of active canine distemper was found.

589. Wilman, E. A. 1984. Benefits to deer hunters from forest management practices which provide deer habitat. Transactions of the North American Wildlife and Natural Resources Conference 49:334-344.

Evaluates influence of several variables on where hunters prefer to hunt. Forest management in the Black Hills National Forest is discussed.

590. Wilson, G. M. and J. R. Choate. 1997. Taxonomic status and biogeography of the southern bog lemming, *Synaptomys cooperi*, on the central Great Plains. Journal of Mammalogy 78:444-458.

Assesses variation in cranial morphology of southern bog lemming in the Great Plains states, including South Dakota. There was geographic variation in cranial size, but the authors recommended retaining current subspecific recognition.

591. Woodward, H. R. 1930. Abnormal growth of incisors in the *Fiber zibethicus*. Proceedings of the South Dakota Academy of Science 13:108-111.

Reviews the growth process of teeth in rodents and documents abnormal incisor growth in a muskrat from Fall River County. Photographs included.

592. Worman, J. J. and W. P. Jensen. 1981. Prairie dog control in South Dakota: an overview. Proceedings of the South Dakota Academy of Science 60:184.

Abstract only. Outlines the use of zinc phosphide on oats to control increasing prairie dog populations.

593. Woster, K. 1993. Mountain lion sightings reported. Sioux Falls Argus Leader, November 5, 1993.

News release of a noteworthy sighting of a mountain lion and cub east of the Missouri River in Jerauld County.

594. Wydeven, A. P. 1977. Elk food habits and range interactions with other herbivores in Wind Cave National Park. Pp 77-81 *in* First Annual National Park Service Research Center Report. University of Wyoming, Laramie.

Presents data on elk food habits and habitat use. Also discusses competition between elk and other herbivores in Wind Cave National Park.

595. Wydeven, A. P. 1979. Food habits and ecological relationships of elk to other herbivores in Wind Cave National Park. M.S. Thesis, Iowa State University, Ames. 208 pp.

Gives data on elk food habits based on rumen samples. Quantifies competition within Wind Cave National Park for forage between elk and other herbivores.

596. Wydeven, A. P. and R. B. Dahlgren. 1983. Food habits of elk in the northern Great Plains. Journal of Wildlife Management 47:916-923.

Examines seasonal food habits of elk at Wind Cave National Park. Graminoids and forbs were the major forage in spring/summer and fall/winter respectively. Major plants consumed included big bluestem, Louisiana sagewort, and threadleaf sedge.

597. Wydeven, A. P. and R. B. Dahlgren. 1985. Ungulate habitat relationships in Wind Cave National Park. Journal of Wildlife Management 49:805-813.

Assesses competition among elk, mule deer, pronghorn, and bison at Wind Cave National Park. Differences in habitat use, food, and spatial distribution likely limit competition among species.

598. Wydeven, P. R. 1979. Comparison of prairie dog stomach and fecal material with a microhistological technique. M.S. Thesis, Iowa State University, Ames. 47 pp.

Lists plant species found in prairie dog stomach and fecal samples during summer. The effect of prairie dog towns on other ungulates at Wind Cave National Park is also discussed.

599. Wydeven, P. R. and R. B. Dahlgren. 1982. Comparison of prairie dog stomach contents and feces using a microhistological technique. Journal of Wildlife Management 46:1104-1108.

Compares vegetation composition in the diet of black-tailed prairie dogs to stomach contents and feces. Concludes that fecal material provides a reasonable estimate of stomach contents for the primary forage species.

600. Young, S. P. 1954. Black-footed ferret (*Mustela nigripes*) in South Dakota. Journal of Mammalogy 35:443.

Brief note of a road-kill black-footed ferret in Perkins County.

601. Zakrezewski, R. J. 1985. A new species of woodrat (Cricetidae) from the Pleistocene of South Dakota. Journal of Mammalogy 66:771-773.

Describes, based on fossil dentary, a new *Neotoma* species from Walworth County, South Dakota.

Section I, Part II
South Dakota Game Reports

The following citations, numbered from 1001 - 1148, are all commonly known as Game Reports. All are reports to satisfy requirements of annual Federal Aid to Wildlife Restoration funding (i.e., Pittman-Robertson or P-R monies) for projects in the state of South Dakota. Because we did not have library access to a full collection of these reports and because report submission did not always match with the year(s) of the work detail, we have opted to provide citations for these reports with author and title only (i.e., without a publication date or study project number. Most reports reference the year(s) of the study activity in the title; for those that do not, we have included a circa date (e.g., ca 1940s or ca 1940s-1950s). All or a portion of any of these reports may be duplicated as a thesis, manuscript, etc., in Section I, Part I.

If you wish to obtain any of these reports for special needs, we recommend you contact the main office of South Dakota Game, Fish and Parks in Pierre. We have indexed all of these Game Reports to author and some to subject and study location in the same manner as the journal, thesis, and book citations (1-601).

1001. Anderson, M. E. Fall muskrat house counts, 1952.

1002. Anderson, M. E. Muskrat investigations during the (1951-54) trapping season.

3 reports.

1003. Anonymous. Food habits study of deer in the southern Black Hills.

1004. Anonymous. Antelope management in South Dakota.

1005. Benzon, T. A. Mortality and habitat use of white-tailed deer fawns in the northern Black Hills, South Dakota (1991-94).

1 report and 1 completion report.

1006. Benzon, T. A. Reintroduction of Rocky Mountain bighorn sheep in the Black Hills, South Dakota (1986-90).

Plans for the reintroduction of bighorn sheep at Spring Creek Canyon in the Black Hills. Management practices conducted at the release site and methods used to monitor reintroduced sheep are discussed.

1007. Benzon, T. A. and L. A. Rice. Rocky Mountain goat population status in the Black Hills, South Dakota (1983-87).

4 reports. Visual observations and telemetry were used to monitor seasonal habitat use and mortality of mountain goats in the Black Hills. Goats avoided areas of intense human use.

1008. Berner, L. M. Preliminary examination of the Big Elk Burn as a basis for planning deer range improvement (ca 1950s).

1009. Berner, L. M. Deer management in the Black Hills of South Dakota (ca 1950s).

1010. Berner, L. M. Mountain goat observations on Harney Peak by U.S. Forest Service towerman, Byron Hazeltine, during the summer of 1952.

1011. Berner, L. M. Incidence of and the development of field techniques for parasitological examination of the antelope of South Dakota (1952-53).

2 reports.

1012. Berner, L. M. The (1951-55) spring deer population in the Black Hills as compared with that of (1950-54).

5 reports.

1013. Berner, L. M. South Dakota's deer populations and problems outside of the Black Hills, 1950.

1014. Berner, L. M. Method of estimating the success of those deer hunters who did not report after the 1950 season.

1015. Berner, L. M. Accuracy of "date killed" data taken from hunter report cards (ca 1950s).

1016. Berner, L. M. Deer crippling loss study, 1954.

1017. Berner, L. M. Sex and age composition of deer left in the field after the 1953 Black Hills deer season.

1018. Berner, L. M. Field-dressed weight and locker-dressed weight relationship for the Black Hills deer in 1953.

1019. Berner, L. M. Girth-weight relationship data for the deer of South Dakota (1951-52).

2 reports.

1020. Berner, L. M. Calculated harvest of deer in the Black Hills, (1949-50).

2 reports.

1021. Berner, L. M. The (1949:1951-52) elk harvest in the Black Hills of South Dakota.

3 reports.

1022. Berner, L. M. The (1951-52) deer population by counties outside of the Black Hills and suggested year for a deer season.

2 reports.

1023. Berner, L. M. Relative danger to hunters under the "bucks only" and "any deer" seasons (ca 1950s).

1024. Berner, L. M. Poll of ten percent of the Pennington County hunters who obtained deer hunting licenses, 1950.

1025. Berner, L. M. Physiology of antlered does (ca 1950s).

1026. Berner, L. M. Data on the special deer season in a portion of Meade County in 1950.

1027. Berner, L. M. Management suggestion for the state-owned farms in the Spearfish area (ca 1950s).

1028. Berner, L. M. and W. Bever. Calculated harvest of deer in South Dakota (1951-53).

3 reports.

1029. Berner, L. M. and W. Bever. Incidence and parasitical load of gastro-intestinal parasites in South Dakota antelope in the fall of (1954-55).

2 reports.

1030. Berner, L. M., W. Bever, and G. W. Davis. Black Hills utilization survey for 1950.

1031. Berner, L. M., W. Bever, and G. W. Davis. Antelope restoration (1951-52).

2 reports.

1032. Berner, L. M., W. Bever, and F. A. Priewert. The (1951-57) antelope season in South Dakota.

7 reports.

1033. Berner, L. M., H. Means, W. T. McKean, and W. O. Hanson. South Dakota statewide big game survey-quarterly progress report, (1944:1946-52:1957).

At least 30 reports, some years missing.

1034. Berner, L. M. and C. A. Novak. Deer population by counties outside the Black Hills, (1953-55:1957).

3 reports, possibly 1 other.

1035. Berner, L. M., C. A. Novak, W. Bever, A. H. Richardson, and G. W. Davis. Browse utilization in the Black Hills during the winter of (1950-59:1961-63).

At least 10 reports, possibly one more - 1960-61.

1036. Bever, W. Sex and age ratios and weights of the deer harvested during the deer season in 1951.

1037. Bever, W. Affect of different spacing intervals between aerial transects upon accuracy during the aerial census of antelope (ca 1950s).

1038. Bever, W. Aerial census of elk in proximity of and within Custer State Park, (1955-56).

2 reports.

1039. Bever, W. Affect of silvicultural practices on the production of deer browse (ca 1950s).

1040. Bever, W. Incidence and degree of the parasitic load among antelope and the development of field techniques to measure such parasitism (ca 1950s).

May contain 2 reports, dates are unknown.

1041. Bever, W. Pronghorn in South Dakota (ca 1950s).

1042. Bever, W. Food habits of antelope in northwestern South Dakota (ca 1950s).

1043. Bever, W. Survey of browse utilization by livestock and deer in the Black Hills, 1949.

1044. Bever, W. Spring spotlighting survey for (1953-56).

3 reports.

1045. Bever, W. Deer of South Dakota, 1957.

1046. Bever, W. Observations of spring utilization of grassland parks in the Black Hills by whitetail deer, 1956.

1047. Bever, W. Whitetail and mule deer of South Dakota (ca 1950s).

1048. Bever, W. Parasites and diseases of South Dakota antelope (ca 1950s).

1049. Bever, W. Nonresident small game hunter questionnaire-hunting season, 1959.

1050. Bever, W. Check of the hunter report card system of estimating the harvest of deer (ca 1950s).

1051. Bever, W. Range demonstration enclosure studies (ca 1950s).

1052. Bever, W. Effects of range fertilization on production and palatability of forage to deer (1958-59).

1053. Bever, W. Prairie census of deer by horseback, 1953.

1054. Bever, W. Crippling losses and illegal kill during the 1948 antelope season.

1055. Bever, W. and L. M. Berner. The (1950-55:1957) antelope census in South Dakota.

At least 7 reports, possibly 1 more (1956).

1056. Bever, W., G. W. Davis, and K. R. Linstrom. Deer trapping operations in the northern Black Hills, (1950-57).

6 reports.

1057. Bever, W. and R. D. Hart. Study of deer pellet groups as an index to population trend and true population in (1955-57).

3 reports.

1058. Burt, T., Jr. Antelope population estimates, 1959.

1059. Burt, T., Jr. Antelope harvest data and hunt control-New Mexico (ca 1950s).

1060. Carter, A. V. and C. N. Hillman. Mobility of South Dakota deer between Badlands National Monument and surrounding areas (1970-77).

At least 7 reports. Monitored deer movements in/out of the monument and origins of deer causing local crop-depredation.

1061. Carter, A. V. and C. G. Trautman. Effect of predator control upon pheasant nesting success (1966-71).

Pheasant nesting success following intensive control of predators. Predator reduction had very little influence on nest success.

1062. Dahlgren, R. B. and E. C. Pirtle. Identification and study of a hemorrhagic disease affecting the white-tailed deer population of South Dakota (1958:1960-61).

2 reports.

1063. Davis, G. W. Antelope age ratio study by aerial transect in 1952.

1064. Davis, G. W. Spotlight observation in the Black Hills (1949-51).

3 reports.

1065. Davis, G. W. 1952 observations on state-owned farms.

1066. DeBates, L. W. and R. D. Hart. Using and improving pellet count study as a census of trend of deer numbers in the Black Hills (1957-59).

3 reports.

1067. Duerre, D. C. Evaluation of summer spotlighting counts of deer (1959).

Physiological and ecological factors affecting the number of deer observed during spotlighting surveys. Ambient temperature was the principal factor affecting deer activity and consequently the number of deer observed.

1068. Foss, W. C. Winter muskrat age and sex ratios (1958-59).

1069. Fredrickson, L. F. Pine marten introduction into the Black Hills of South Dakota (1979-88).

Progress of pine marten reintroduction efforts into the Black Hills of South Dakota.

1070. Fredrickson, L. F. Impact of organized landowner-sportsmen small carnivore harvest upon red fox, raccoon, badger, skunk and pheasant populations (1974-78).

Possibility of enhancing public interest in hunting small carnivores and whether sufficient harvest levels could be achieved as part of pheasant management goals.

1071. Fredrickson, L. F. Furbearer harvest surveys (1982-86).

4 reports on harvest data for 14 species of South Dakota furbearers between 1982-86. Results are from fur dealer and trapper/hunter surveys.

1072. Fredrickson, L. F. and J. L. Mack. Mortality, home range, movements, and habitat preference of South Dakota bobcats (1990-94).

Radio telemetry to monitor movements, habitat use, and mortality of bobcats. Also contains data on small mammal and cottontail population changes during the study.

1073. Fredrickson, L. F., L. A. Rice, M. F. Whitcher, J. L. Mack, and T. A. Benzon. Bobcat management surveys (1977-97).

Annual reports of bobcat harvest data since 1977. Includes data on age ratios, sex ratios, and method, date, and county of harvest during each respective season. Data currently used to model bobcat populations in western South Dakota.

1074. Gibbs, M. and J. A. Jenks. Evaluation of big game habitat improvement through precommercial thinning of ponderosa pine in Custer State Park, 1991.

Effects of forest thinning on forage production and utilization by herbivores, primarily big game, at Custer State Park.

1075. Griffin, S. L., L. A. Rice, J. F. Kennedy, and J. A. Jenks. Seasonal movements and home range of white-tailed deer in the central Black Hills, South Dakota (1993-97).

Objectives of the study were to document home range area and migration timing of white-tailed deer in the central Black Hills. Migration from winter to summer range occurred from mid-May to mid-June.

1076. Halseth, R., R. W. Hauk, and L. A. Rice. Elk management surveys (1992:1995).

Annual reports from elk hunter surveys. Data on hunter success, age ratio, sex ratio, and population changes are given.

1077. Hamm, D. C. Deer and cattle forage relationships on a deer winter range in the Black Hills, 1971.

1078. Hanson, W. O. Distribution and range of mountain goats within the Black Hills, 1949.

1079. Hanson, W. O. Survey and management of the mountain goat in South Dakota, 1949.

1080. Hart, E. B. Population structure of red foxes and badgers in northeastern South Dakota (1980-83).

Population structure and reproductive success of badger and red fox populations in eastern South Dakota.

1081. Hart, R. D. Cost and browse production analysis of pine thinning, 1960.

Post-thinning evaluation of various levels of pine forest thinning on grass, forbs, and deer browse. Changes in vegetation abundance are presented.

1082. Hart, R. D. Antelope crippling loss and movement study, 1959.

1083. Hart, R. D. Bison immobilization research, 1960.

Effectiveness of 3 drugs (Sucostrin, Cap Chur Sol, Cap Chur Gem) for immobilizing bison. Recommends dosages for each drug, appropriate equipment, and environmental conditions for immobilizing bison.

1084. Hart, R. D. and R. L. Robbins. Evaluation and improvement of deer pellet group counts in the Black Hills (1958-62).

5 reports. Studied defecation rates of penned deer to improve pellet count surveys of white-tailed deer. Also evaluated age and durability characteristics of known-age pellet groups.

1085. Hart, R. D. and R. L. Robbins. Evaluation of summer spotlighting counts of deer (1959-62).

4 reports.

1086. Hart, R. D. and R. L. Robbins. Deer range trend study (1960-62).

2 reports.

1087. Henderson, F. R. Modification of floating muskrat poison bait station and muskrat population control (1960-62).

2 reports.

1088. Jackson, W. W. Non-reporting of east river deer hunters, 1972.

1089. Jackson, W. W. and J. Popowski. Eastern South Dakota deer seasons (1947-59).

2 reports.

1090. Jense, G. K. Food habits, reproduction and other behavior of badgers in eastern South Dakota, 1967.

Food habits of badgers collected in eastern South Dakota as part of large scale predator reduction studies. Thirteen-lined and Richardson's ground squirrels were principal food items.

1091. Kirsch, L. M. and E. Podoll. Muskrat study area survey, Day County (1952-54).

3 reports.

1092. Kranz, J. J. Broadcast-seeding of shrubs for deer winter browse in ponderosa pine stands of the Black Hills (1974-78).

3 reports and 1 completion report. Efforts to establish shrubs for deer winter browse in ponderosa pine stands. Seedling emergence was best when planted in early spring on areas clear-cut and burned.

1093. Kranz, J. J. and L. E. Petersen. Reliability of deer hunter report card data (1970-72).

3 reports and 1 completion report. Successful deer hunters tended to "upgrade" their kill (e.g., fawn-buck, doe-buck) on voluntary hunter report cards. Suggests locker checks by trained professionals to be a more reliable method of censusing hunter success, sex, and age of kill.

1094. Kranz, J. J. and L. E. Petersen. Deer range improvement in the Black Hills of South Dakota (1970-73).

3 reports and 1 completion report. A seeding trial of Siberian peashrub was conducted in an attempt to establish an alternate deer forage in the Black Hills. The broadcast seeding attempts failed at all sites.

1095. Kranz, J. J. and L. E. Petersen. Spotlight counts as an index to deer numbers and reproduction in the Black Hills of South Dakota (1970-73).

4 reports. Evaluated spotlight counts during the fall and summer to model deer numbers, reproduction, and sex and species ratios.

1096. McPhillips, K. B. Summary and comparison of 1986 deer harvest statistics generated from "complete census" reported data and "sub-sampling survey" questionnaire data from selected deer management units.

Describes a method used to estimate big-game harvest information via sub-sampling vs. a complete census method.

1097. McPhillips, K. B. Big game harvest projections (1988-97).

Annual reports containing harvest data for turkey, pronghorn, deer, mountain goat, bighorn sheep and elk. Data are summarized by hunting season, hunting method, and hunting unit.

1098. McPhillips, K. B. Black Hills buck deer harvest-subsampling-an alternative to total census January, 1985.

1099. McPhillips, K. B., L. A. Rice, K. Wallin, R. W. Hauk, T. Nash, T. E. Schenck,III, and J. R. Schroeder. Deer management surveys (1973-96).

Annual surveys of deer populations by management unit. Beginning with the 1973-74 report, these annual reports contain similar information found in separate reports prior to 1973. These reports may include 1 or more of the following: 1. Browse utilization surveys, 2. Analysis of deer hunter report card returns, 3. Pellet group counts to determine deer trends in the Black Hills, 4. Deer trapping and tagging in the Black Hills, 5. Deer harvest age structure, 6. Fall spotlighting survey, 7. Mortality rates of fawn age class in South Dakota deer populations.

1100. Nelson, R. L. Evaluation of chemosterilants as inhibitors of reproduction in raccoons, 1970.

1101. Novak, C. A. Trapping and tagging deer, 1958.

Trapping operations for the purpose of marking fawns, collecting blood, and estimating rates of ear-tag loss.

1102. Novak, C. A. Hunting season locker and field check of deer (ca 1950s).

1103. Novak, C. A. Spring-fall browse utilization survey (1957-58).

1104. Novak, C. A., L. M. Berner, and A. H. Richardson. Deer questionnaire to ranchers to determine the spring deer population trend in the Black Hills of South Dakota (1949-50:1957-59:1962).

At least 6 similar reports, probably more with years missing.

1105. Novak, C. A., W. Bever, and A. H. Richardson. Spring spotlighting report for deer population trend studies, (1957-59:62).

4 reports.

1106. Parikh, G. C., H. E. Calkins, R. B. Dahlgren, and D. R. Wenger. Epizootic hemorrhagic deer disease study, (1963-69).

6 reports.

1107. Petersen, L. E. Deer movement as determined by radio telemetry (1965-66).

1108. Petersen, L. E. and J. J. Kranz. Preliminary investigations into the use of aspen by wildlife (1966-69).

3 reports.

1109. Petersen, L. E. and J. J. Kranz. Hunter observations of deer crippling loss and illegal kill in six prairie counties, 1969.

1110. Petersen, L. E. and C. B. Whittaker. Long term effects of thinning on forage production in the northern Black Hills, (1966-67).

1111. Pietz, H. H. Cottontail, squirrel and mourning dove harvest survey, (1981-86).

Harvest data of cottontail rabbits and squirrels. Includes average days afield and season harvests. Report years not continuous.

1112. Pietz, H. H. Small game harvest questionnaire (1967-68).

2 reports.

1113. Pietz, H. H. South Dakota big game road kills during 1965.

1114. Priewert, F. A. Locker and field checks of antelope, 1958.

1115. Priewert, F. A. Spring aerial census of deer (1956-57).

2 reports.

1116. Priewert, F. A. Salt use by deer in the northern Black Hills, 1955.

1117. Priewert, F. A. Summer and fall spotlighting for deer population trends and sex and age data, 1959.

1118. Priewert, F. A. Composition of the Spearfish Canyon deer herd on their winter feeding grounds (1955-56).

2 reports.

1119. Priewert, F. A. Evaluation of feeding deer at higher than normal elevation (ca 1950s).

1120. Priewert, F. A. and K. R. Linstrom. Spotlighting operations in the northern Black Hills (1952-55).

4 reports.

1121. Reed, D. E. and H. J. Shave. Deer diseases in South Dakota (1972-76).

3 reports and 1 completion report. Data on deer diseases in South Dakota was collected from free-living and captive deer. Traumatic injury (20%) was the most common diagnosis of the deer surveyed.

1122. Reed, D. E. and H. J. Shave. Deer diseases in South Dakota (1974-75).

1123. Rice, L. A. Age determination of South Dakota deer populations by dental cementum layers (1973-76).

3 reports and 1 completion report. Tested several cementum annuli techniques for estimating the age ratio of harvested deer. Management recommendations are presented.

1124. Rice, L. A. Mortality rates of fawn age class in South Dakota deer populations (1976-81).

At least 5 progress reports. Estimates of fawn mortality rates are presented based on reproductive potentials and fall fawn/doe counts.

1125. Rice, L. A. Evaluation of movements and habitat use of elk in the southern Black Hills, South Dakota (1980-86).

4 reports. Telemetry was used to evaluate elk movements and habitat use in the southern Black Hills. Home range and daily movements increased in response to hunting, livestock, and other human related disturbances.

1126. Rice, L. A. Fawn mortality rates in South Dakota deer populations (1977-81).

1127. Rice, L. A., J. F. Kennedy, S. L. Griffin, J. A. Jenks, and R. Moses. Movement and habitat use of white-tailed deer in the northern Black Hills, South Dakota (1990-92).

2 reports and 1 completion report. Evaluated habitat use of white-tailed deer at the micro and macro levels on winter, spring, and summer range. Ponderosa pine and aspen stands were important to deer in this study.

1128. Richardson, A. H. Preliminary report on the 1967 mountain goat season.

1129. Richardson, A. H. Outlook on the Black Hills deer herd (1964-65).

2 reports.

1130. Richardson, A. H. Evaluation of the 1961 deer season in the Black Hills.

1131. Richardson, A. H. Evaluation of the 1962 west river deer season.

1132. Richardson, A. H. and D. Brady. Questionnaire to ranchers and aerial census to determine the spring deer population trend in the Black Hills of South Dakota (1967-71).

5 reports. Results of the annual rancher survey to evaluated deer population trends in the Black Hills. The survey is compared to aerial surveys.

1133. Richardson, A. H., D. Brady, and C. H. Albers. Annual spring browse utilization survey (1967-73).

7 annual reports. These reports continue under the deer management survey reports. Annual trends of spring browse utilization. The degree of browse utilization was separated into 3 categories (over, proper, under).

1134. Richardson, A. H., R. W. Hauk, D. Hausle, J. J. Kranz, P. Russell, and R. J. Schwarting. 1973. Using and improving pellet group counts to determine deer numbers and trends of deer numbers in the Black Hills (1966-72).

5 reports. Deer pellet group data were collected along belt transects in the Black Hills. Population estimates and trend data are presented.

1135. Richardson, A. H., R. W. Hauk, and L. J. Vanderbush. Antelope harvest regulations study (1973-75).

Annual reports of the aerial spring survey of pronghorn and hunter harvest data.

1136. Richardson, A. H., R. E. Hulbert, T. L. Kuck, R. Sanderson, A. Schallenberger, and M. F. Sorenson. Pellet count study as a census and trend of deer numbers in the Black Hills (1960-66).

7 reports.

1137. Richardson, A. H. and F. A. Priewert. Analysis of antelope hunter report card data (1958:1971-72).

At least 3 reports. These reports are nearly identical to the reports entitled "Locker and field checks of antelope and analysis of hunter report card data."

1138. Richardson, A. H. and J. R. Schroeder. Deer harvest regulation study (1973-76).

Progress reports of 4 (browse utilization survey, deer hunter report card return, pellet group counts, and trapping and tagging) deer management studies. These studies were presented as individual reports prior to fiscal year 1973-74.

1139. Rose, B. J. West river deer hunting statistics (1964-71).

1140. Rose, B. J., A. H. Richardson, W. W. Jackson, C. H. Albers, D. Brady, and C. A. Novak. Analysis of the deer hunter report card returns (1958:1966-72).

Annual deer harvest and hunter success data by management units.

1141. Schneeweis, J. C. Food habits study of whitetail deer in the northern Black Hills of South Dakota, 1967.

Forage data was collected from northern Black Hills deer stomachs during fall, winter, and summer. Oregon grape and kinnikinnick were important in both the fall and winter. Peavine and service berry ranked high in the summer months.

1142. Sparrowe, R. D. Population distribution and mobility of deer in eastern South Dakota (1963-65).

2 reports.

1143. Trautman, C. G., L. F. Fredrickson, and A. V. Carter. Relationship of red foxes and other predators to populations of ring-necked pheasants and other prey, (1964-72).

Long-term evaluation of predator control measures to increase ring-necked pheasant populations and other game species. Simultaneous control of fox, raccoon, badger, and skunk populations increased game species populations during the study.

1144. West, D. R. 1962 antelope hunting season evaluation report.

1145. West, D. R. Summary of the 1963 northern prairie spring big game questionnaire.

May be more than 1 report.

1146. West, D. R., D. H. Duncan, and F. A. Priewert. Spring inventory of antelope in South Dakota (1958-59:1967-72).

Reports from the annual spring inventory of pronghorn in South Dakota.

1147. West, D. R. and H. H. Pietz. Locker and field checks of antelope and analysis of hunter report card data (1966-70).

5 reports. Annual data on hunter harvest and hunter success of rifle and archery antelope hunters.

1148. Wrede, J., M. F. Muck, R. L. Brown, and R. Halseth. Antelope management surveys (1973-97).

By management unit. Beginning with the 1973 report, these reports contain similar information found in separate reports prior to 1973. These reports may contain 1 or more of the following: 1. Spring inventory of antelope, 2. Analysis of antelope hunter report card returns, 3. Data from the annual aerial spring inventory and harvest of pronghorn. Includes population estimates, age ratio, sex ratio, and harvest data for each year. These reports are preceeded by the antelope harvest regulation studies.

Section II
Keyword Index

The following keyword index was designed to aid researchers interested in a particular topic. The keywords are presented under general categories of interest.

Population Dynamics

South Dakota Mammal Species Index

The mammal species index was developed to aid researchers interested in articles with a specific species or group of mammals as the study animal. If the study was conducted on a few (<5) species, then the article can be found under each species mentioned. Studies mentioning numerous species (e.g., population inventory) will be listed under the Order. For example, a small mammal study listing numerous small mammals can be found under the Orders Rodentia and Insectivora. Likewise, a study of bats may be found under the Order Chiroptera. This index should not be interpreted as a list of all mammals that currently occur in South Dakota.

The taxonomy and nomenclature of mammals has changed considerably and mammalogist continue to refine our knowledge of mammal evolution. We elected to follow the taxonomy presented by Wilson and Reeder[1] (1993), therefore, some scientific names presented in the titles of articles will not be found in this index.

[1] Mammal Species of the World: a Taxonomic and Geographic Reference. 1993. D.E. Wilson and D.M. Reeder, eds. 1206 pp.

South Dakota Mammal Location Index

The mammal location index was developed to aid researchers searching for articles with study sites in a particular geographic area of South Dakota. The index is separated into eastern and western South Dakota with the exception of articles listed under "Laboratory/Pen," "South Dakota," and "Missouri River." Not all South Dakota counties were specifically mentioned, therefore, not all counties are listed. Studies conducted at a specific site (e.g., Custer State Park) within a county follow the county name. Studies conducted over a large geographic region (e.g., Antelope in western South Dakota) will be listed under "Western South Dakota" vs. under each individual county. In 1941, South Dakota merged Washington County with Shannon County, Armstrong County with Dewey County, and Washabaugh County with Jackson County.

South Dakota Mammals Author Index