

## BIOGRAPHICAL SKETCH OF BRIAN MILLER

In December of 1988, I received a Ph.D. from the University of Wyoming in behavioral ecology and conservation of black-footed ferrets (my BS and MS were from the University of Illinois in Economics/history and Dairy Science, respectively). Black-footed ferrets are an endangered carnivore that lives exclusively on prairie dog colonies. In 1985, the only known population suffered a drastic decline due to an exotic disease. We captured all remaining wild individuals for a captive breeding program to bolster their numbers. At one point there were only 10 ferrets left to represent the entire species. By 1988, captive breeding was successful, and numbers of black-footed ferrets were growing. I was then awarded a competitive Smithsonian Institution Post-doctoral Fellowship at the Smithsonian's Conservation and Research Center (1989-1990). This post-doc was centered on the reintroduction and restoration of captive-raised black-footed ferrets on the western prairies. The pre-release conditioning technique we developed during this post-doc has been used by the U.S. Fish and Wildlife Service for all captive-raised black-footed ferrets before their reintroduction to the wild. When my Post-doc ended, I became a Smithsonian Research Associate. I am still active with planning activities for black-footed ferret recovery, and I was given an Outstanding Service Award by the U.S. Fish and Wildlife Service for this work.

In 1991 and 1992, I worked for the National Ecology Research Center of the U.S. Fish and Wildlife Service on their black-footed ferret reintroduction team. During this time, we cooperated with the Navajo Natural Heritage to start a conservation biology course at the Tsaile Community College for juniors and seniors in high school. Students received college credit for the 4 week course. They stayed in a college dormitory and were exposed to the style of teaching in college, and hopefully that eased the transition when they left home to begin an undergraduate education.

In 1993 and 1994, I completed a two year post-doctoral appointment in the Centro de Ecología, Universidad Nacional Autónoma de México. This post-doc was aimed at research needed to start a protected area on the largest remaining prairie dog complex in North America, which is located in the northern Chihuahua grasslands. During this effort, we raised funds to sponsor 6 graduate students working on the biological aspects necessary for the reserve. We set groundwork for the black-footed ferret reintroduction to Chihuahua that occurred in 2002, and we wrote the CITES proposal to the U.S. Fish and Wildlife Service, as well as the Mexican permit request to SEMARNAP (now named INE).

From 1995 to 1997, I held a professor, Titular B position with the Instituto de Biología, Universidad Nacional Autónoma de México at the Chamela Biological Research Station (Titular A is entry and Titular C is equivalent to a full-professor). At this time, we started a research project with jaguars and pumas at the research station. That project continues today. A Mexican graduate student is using the telemetry data to analyze ecological interactions between jaguars and pumas for his doctorate and to assess how well the reserve protects jaguars. In addition, the student is completing a landscape analysis of potential jaguar habitat along the west coast of Mexico and is proposing a conservation plan for the species. This effort has the support of the Mexican Government as the jaguar is one of the 10 priority species for the INE. I am presently part of the Inter-agency Jaguar Working Group in the Southwestern U.S.

In 1997, an illness in the family created a situation where I needed to be more accessible to them, and I was awarded a position as Coordinator of Conservation and Research at the Denver

Zoological Foundation. In this position, we initiated and managed the conservation and research program at the Denver Zoo. We awarded small grants to researchers, taught at the University of Denver (where we also had graduate students), and conducted conservation research. My research examined the structure of small mammals and coyotes in five habitat types with and without wolves to see how recolonizing wolves affect community structure in Grand Teton National Park. It lasted from 1999-2005. I am now in New Mexico, but that research will be continued by other researchers in both the Grand Teton and Yellowstone National Parks. While at the Denver Zoo, we coordinated the Lynx Advisory Team to the Colorado Division of Wildlife, and in 2000 the Division of Wildlife gave us an Outstanding Service Award for helping with the lynx reintroduction effort.

I am presently the Executive Director of the Wind River Ranch Foundation, which is based on a 5,000 acre ranch near Las Vegas, New Mexico. This ranch is being managed for conservation and education. Through the Wind River Ranch Foundation, we seek to blend conservation and education for four target audiences: local middle and high schools, regional universities, adults via literacy programs and writing workshops, and by forming a watershed association along the Mora River.

I have taught general biology, animal behavior, environmental physiology, reproductive physiology, wildlife ecology, field research techniques, and conservation biology at the university level. I received an Outstanding Teaching Award from the University of Illinois (the U of I gives this award to teachers whose student ratings are in the top 10% for the university). I have directed committees for five students, two in Mexico and three at the University of Denver. I have also served on graduate committees for about 15 graduate students from 5 countries, and at 6 universities.

At this point, I have published 80 scientific articles in refereed journals or invited book chapters. Those papers have appeared in journals such as Ecology, Journal of Canadian Zoology, Journal of Experimental Zoology, Journal of Ethology, Conservation Biology, Environmental Management, Auk, and a monograph on black-footed ferrets for Ethology (formerly Zeitschrift fur Tierpsychologie). In addition, we (authorship: Miller, Reading, and Forrest) wrote a book on black-footed ferrets for Smithsonian Institution Press. It was published in July of 1996 (titled "Prairie Night: The Recovery of Black-footed Ferrets and Other Endangered Species"). I am co-editor on "Endangered Animals," a book about recovery of endangered species for Greenwood Press, (published in 2000), am lead editor of a book titled "A Conservation Vision for the Southern Rockies" (Colorado Mountain Club Press; published in 2003), and am second editor on a technical book titled "Recovery of the Black-footed Ferret: Progress and Continuing Challenges" (USGS 2006). I am presently editing one other book. My main research interest concerns the role of keystone species in regulating ecosystem processes and how to conserve those species and processes.

I belong to 5 scientific organizations and have been on the Board of Directors for 4 conservation organizations. Presently I am a scientific advisor for 5 conservation groups and a fellow in a conservation think tank (The Rewilding Institute). I speak and write English (mother tongue) and Spanish.

## **CURRICULUM VITAE**

### **PERSONAL**

Brian Miller  
Wind River Ranch Foundation  
PO Box 27  
Watrous NM 87753

Tel (505) 425-1819  
e-mail: brianjmill@msn.com

### **CIVIL STATUS**

Married to Carina Bringas de Miller (5 February 1995): We have two children: Mary Aseneth Miller (born 29 July 1996) and Anabella Isabel Miller (born 3 September 1998)

### **EDUCATION**

University of Illinois, Urbana  
1971 BS (History and Economics in the College of Liberal Arts and Sciences)

University of Illinois, Urbana  
1982 MS: (Reproductive Physiology in Department of Dairy Science, College of Agriculture): Thesis title: Effect of in vitro storage of bovine spermatozoa on proteolytic enzyme activity and on sperm binding to and penetration of bovine oocytes in vitro.

University of Wyoming, Laramie  
1988 PhD: (Behavioral Ecology in Department of Zoology and Physiology): Dissertation title: Conservation and behavior of the endangered black-footed ferret (*Mustela nigripes*) with a comparative analysis of reproductive behavior between the black-footed ferret and the congeneric domestic ferret (*Mustela putorius furo*).

### **HONORS and AWARDS**

1982: University of Illinois Outstanding Teaching Award

1989-1990: Smithsonian Institution Post-doctoral Fellowship Award

1991-Present: Research Associate of the Smithsonian Institution

1992: Outstanding Service Award from U.S. Fish and Wildlife Service (for black-footed ferrets)

1992-2003: Board of Directors for Idea Wild

1994-1997: Sistema Nacional de Investigadores (SNI) Nivel I

1995-2002: Board of Directors for The Wildlands Project

1999-2003: Board of Directors for the Southern Rockies Ecosystem Project

2000: Outstanding Service Award from the Colorado Division of Wildlife (for lynx)

2003: E – Chievement Award from Whole Foods Market and E – Town (for conservation work at the Denver Zoo)

### **SCIENTIFIC ORGANIZATION MEMBERSHIP**

Reintroduction Specialist Group of the International Union for the Conservation of Nature (IUCN)

Society of Conservation Biology

Wildlife Society

American Society of Mammalogists

### **PROFESSIONAL EXPERIENCE**

#### **Research:**

1982-present: At least one complete field season of research experience with prairie falcons, elk, badgers, mountain plovers, black-tail and white-tail prairie dogs, black-footed ferrets, deer mice, voles, coyotes, coatis, ocelots, jaguars and pumas: Black-footed ferret research covered 9 years; puma and jaguar research started in 1995 and is ongoing. Much of the research has involved radio-telemetry or capture-recapture techniques. I have conducted research for the Wyoming Game and Fish Department, U.S. Fish and Wildlife Service National Ecology Research Center, Wyoming Cooperative Research Unit, Smithsonian Institution, the National University of Mexico, and the Denver Zoological Foundation.

1999-present (ongoing): Research project on the structure of small and medium-sized mammals in five habitat types with and without wolves. This project investigates how recolonizing wolves affect community structure. Project takes place in the Grand Teton National Park.

### **Teaching:**

1980-1988: Teaching experience as a graduate assistant in reproductive physiology (3 semesters—Animal Science at the University of Illinois), general biology (3 semesters at University of Wyoming), mammalogy (1 semester at University of Wyoming), environmental physiology (2 semesters at University of Wyoming).

1992: In cooperation with the Navajo Natural Heritage, we established a Conservation Biology course at the Navajo Community College in Tsaile, Arizona. The summer course lasted six weeks. I raised grant money necessary to cover costs (@\$50,000) and was one of the teachers.

1992-1995: Worked with 6 graduate students of the Centro de Ecología, Universidad Nacional Autónoma de México to initiate a protected area in the northern Chihuahua desert. I raised grant money and assisted students with research design and data collection. During this work, I held a Post-doctoral position from the Centro de Ecología, Universidad Nacional Autónoma de México.

1995-1997: I was a Professor, Titular B (A is entry and C is highest level) in the Instituto de Biología, Universidad Nacional Autónoma de México, and stationed at the Estación de Biología, Chamela.

1997-2005: Coordinator of Conservation and Research for the Denver Zoological Foundation. Administer conservation activities, perform research, advise graduate students, and teach two courses and one graduate seminar a year for the University of Denver.

1998-2004: Associate Research Professor at University of Denver where I teach courses on Field Research Techniques and Conservation Biology to upper-level undergraduates and graduate students, as well as graduate seminars on Ecology and Behavioral Ecology.

2005- present: Executive Director of the Wind River Ranch Foundation.

### **Director of graduate thesis for:**

Rodrigo Núñez: Licenciatura en la Universidad Michoacana de San Nicolás de Hidalgo: Hábitos alimentarios de jaguar (*Panthera onca*, Linnaeus, 1758) y del puma (*Puma concolor*, Linnaeus, 1771), en la Reserva de la Biosfera Chamela-Cuixmala, Jalisco. (Morelia Mich., completed November 1998).

Carlos López: Ph.D. in the Universidad Nacional Autónoma de México, Facultad de Ciencias: Implicaciones para la conservación y el manejo de pumas (Puma concolor) utilizando como modelo una población sujeta a cacería deportiva. (México, D.F. completed February 1999).

Tom Zapico: M.S. in the University of Denver: Effects of environment on the behavior of captive common hippos (*Hippopotamus amphibius*) and observations of sociosexual investigatory behaviors. (Denver, Colorado completed November 2000).

Tatja Renee: M.S. in the University of Denver: Allometric relationships of diving duration and other physiological variables in fresh-water turtles. (Denver, Colorado completed 2002)

Pamela Cooley: M.S. in the University of Denver: ongoing—investigating habitat associations in small mammals in Grand Teton National Park and will construct a predictive model based on those associations for the park

Sat on graduate committees for 6 students in Mexican universities and six students at U.S. universities.

Supervised one Post-doctoral student, Carlos López, for two years (2000 and 2001) while he started a project on jaguars and pumas in Sonora, Mexico.

## **GRANTS**

Funded my M.S. and Ph.D. by writing grants and have received about \$50,000 a year (on average) by grant writing since 1989. Most of these grants were written in English, but several were written in Spanish to Mexican governmental or non-governmental organizations.

## **LANGUAGES**

English (mother tongue) and Spanish (competent in speaking and writing)

## **SCIENTIFIC PUBLICATIONS**

1984. Effect of oxytocin on retained placentas. Miller, B.J. and J.R. Lodge. *Journal of Theriogenology* 22: 385-388.

1985. Non-shivering thermogenesis in the American badger. Harlow, H. and B. Miller. *Journal of Comparative Biochemistry and Physiology* 80: 159-161.

1985. Energy requirements for gestation and lactation, and the effect of food deprivation on a delayed implanter, the American badger. Harlow, H.J., B.J. Miller, T. Ryder, and L. Ryder.

Journal of Comparative Biochemistry and Physiology 82: 885-889.

1986. Home range, time, and body size in mammals. Lindstedt, S.L., B.J. Miller, and S.W. Buskirk. *Ecology* 67: 413-418.

1987. Black-footed ferret surveys-Meeteetse, Wyoming. Morkill, A., D. Belitsky, J. Hanna, and B. Miller. Pages 47-58 *In* Endangered and Non-game Birds and Mammal Investigations. (Eds.) Oakleaf, B., D. Belitsky, and S. Ritter. Wyoming Game and Fish Dept., Cheyenne, Wyoming

1988. A habitat model for the black-footed ferret. Miller, B.J., G.E. Menkens, and S.H. Anderson. Pages 98-102 *In* Eighth Great Plains Wildlife Damage Control Workshop. U.S. Forest Service, Rapid City, South Dakota.

1988. White-tailed prairie dog ecology in Wyoming. Menkens, G.E., B.J. Miller, and S.H. Anderson. Pages 34-38 *In* Eighth Great Plains Wildlife Damage Control Workshop. U.S. Forest Service, Rapid City, South Dakota.

1988. Biology of the black-footed ferret (*Mustela nigripes*) the role of captive breeding in its conservation. Miller, B.J., S.H. Anderson, M.W. DonCarlos, and E.T. Thorne. *Canadian Journal of Zoology* 66: 765-773.

1988. Effect of in vitro storage of bovine spermatozoa on acrosomal integrity, proteolytic activity, binding and initiation of penetration of oocytes. Miller, B.J., C.N. Graves, and J.R. Lodge. *Gamete Research* 20: 53-66.

1989. Observations of the 1986 black-footed ferret (*Mustela nigripes*) captive breeding program. Don Carlos, M.W., B. Miller, and E.T. Thorne. Pages 235-246 *In* Conservation Biology of the Black-footed Ferret. (Eds.) Seal, U.S., S.H. Anderson, M. Bogan, E.T. Thorne. Yale Press, New Haven, Connecticut.

1989. Morphological differences in the post-cranial skeleton of *Spermophilus tridecemlineatus*, *Spermophilus elegans*, and *Spermophilus armatus*. Miller, B.J., H.J. Harlow, and D. Walker. *Southwest Naturalist* 34: 302-304

1989. Evaluation of fertilization during abbreviated copulations in domestic ferrets (*Mustela putorius furo*). Miller, B.J. and S.H. Anderson. *Journal of Experimental Zoology* 249: 85-89.

1990. A behavioral comparison between induced estrus and natural estrus domestic ferrets (*Mustela putorius furo*). Miller, B.J. and S.H. Anderson. *Journal of Ethology*. 7: 65-73.

1990. A comparison of mating behavior between black-footed ferrets (*Mustela nigripes*), domestic ferrets (*M. putorius furo*), and Siberian polecats (*M. everesmanni*). Miller, B.J. and S.H. Anderson. *Zoo Biology* 9: 201-210

1990. A proposal to conserve black footed ferrets and prairie dog ecosystem. Miller, B., C. Wemmer, D. Biggins, R. Reading. *Environmental Management* 14: 763-769
1991. Development of survival skills in captive-raised Siberian polecats (*Mustela eversmanni*) I: Locating prey. Miller, B., D. Biggins, C. Wemmer, R. Powell, L. Hanebury, D. Horn, and A. Vargas. *Journal of Ethology* 8: 89-94.
1991. Development of survival skills in captive-raised Siberian polecats (*Mustela eversmanni*) II: Predator avoidance. Miller, B., D. Biggins, C. Wemmer, R. Powell, L. Calvo, T. Wharton. *Journal of Ethology* 8: 95-104.
1992. Black-footed ferrets--rehabilitation of a species. Miller, B., D. Biggins, L. Hanebury, C. Conway, C. Wemmer. *Wildlife Rehabilitation* 9: 183-192.
1993. An evaluation of black-footed ferret habitat. Biggins, D.E., B.J. Miller, B. Oakleaf, A. Farmer, R. Crete and A. Dood. Pages 73-92 *In* Management of Prairie Dog Complexes for Black-footed Ferret Reintroduction. (Eds.) Oldemeyer, J., D. Biggins, B. Miller, and R. Crete. U.S.F.W.S. Denver, Colorado
1993. Management of black-footed ferret reintroduction sites: A Summary. Miller, B.J., D.E. Biggins, and R. Crete. Pages 89-92 *In* Management of Prairie Dog Complexes for Black-footed Ferret Reintroduction. (Eds.) Oldemeyer, J., D. Biggins, B. Miller, and R. Crete. U.S.F.W.S. Denver Colorado.
1993. Survivability of mountain plovers on the Pawnee National Grassland in 1992. Miller, B. and F. Knopf. *Journal of Field Ornithology* 64: 500-506
1993. Reintroduction of the black-footed ferret. Miller, B., D. Biggins, L. Hanebury, and A. Vargas. pages 455-464 *In* Creative conservation: Interactive Management of Wild and Captive Animals. (Eds.) Mace, G., P. Olney, and A. Feisner, Chapman and Hall, London.
1994. A model for improving endangered species programs. Miller, B., R. Reading, C. Conway, J.A. Jackson, M. Hutchins, N. Snyder, S. Forrest, J. Frazier, and S. Derrickson. *Environmental Management* 18: 637-645.
1994. Charadrius montanus--grassland associate or just another bare ground plover. Knopf, F. and B. Miller. *Auk* 111: 504-506.
1994. Prairie Dogs, Poison, and Biotic Diversity. Miller, B., G. Ceballos, and R. Reading. *Conservation Biology* 8: 677-681

1994. Managing Conflict and Biodiversity in the Prairie Dog Ecosystem. Miller, B. and G. Ceballos. *Endangered Species Update* 10: 1-5.

1994. The black-footed ferret recovery program. Reading, R. and B. Miller. Pages 73-100 *In* *Endangered Species Recovery: Finding the Lessons, Improving the Process*. (Eds.) Clark, T.W., A. Clarke, and R. Reading. Island Press, Covelo, California.

1996. Limitations of captive breeding in endangered species recovery. Snyder, N.F.R., S.R. Derrickson, S.R. Beissinger, J.W. Wiley, T.B. Smith, W.D. Toone, B. Miller. *Conservation Biology*. 10: 338-348.

1996. The Mexican black agouti in Chiapas, Mexico. Estrada-Crocker, C., E.J. Naranjo, and B. Miller. *International Zoo News* Vol. 43: 385-388.

1996. Delineating a new protected area in Northern Chihuahua. Miller, B. *Wild Earth* 6 No. 2: 14-16.

1997. The captive environment and reintroduction: The black-footed ferret as a case study with comments on other taxa. Miller, B., D. Biggins, A. Vargas, M. Hutchins, L. Hanebury, J. Godbey, S. Anderson, C. Wemmer, and J. Oldemeyer. Pages 97-112 *In* *Second Nature: Environmental enrichment for captive animals*. (Eds.) Shepherdson, D., J. Mellon, and M. Hutchins. Smithsonian Institution Press, Washington D.C..

1997. The black-footed ferret. Biggins, D.E., B.J. Miller, T.W. Clark, and R. Reading. *Conservation management case studies: The black-footed ferret*. Pages 420-426 *In* *Principles of Conservation Biology* (second edition). (Eds.) Meffe, G.K. and C.R. Carroll. Sinauer Associates, Sunderland, Massachusetts.

1997. Captive breeding and conservation: A response to Hutchins et al.. Snyder, N.F.R., S.R. Derrickson, S.R. Beissinger, J.W. Wiley, T.B. Smith, W.D. Toone, and B. Miller. *Conservation Biology* 11: 3-4.

1997. Limitations of captive breeding: Reply to Gippoliti and Carpaneto Snyder, S.R. Derrickson, S.R. Beissinger, J.W. Wiley, T.B. Smith, W.D. Toone, and B. Miller. *Conservation Biology* 11: 808-810.

1997. Black-footed ferret (*Mustela nigripes*): Conservation update. Reading, R.P., T.W. Clark, A. Vargas, L.R. Hanebury, B.J. Miller, D.E. Biggins, and P.E. Marinari. *Small Carnivore Conservation* 17: 1-6.

1997. Zoos and a land ethic vision. Reading, R.P. and B.J. Miller. *AZA Annual Conference Proceedings*: 454-460.

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1999. Biological and technical considerations of carnivore translocation: A review. Miller, B., K. Ralls, R. Reading, M. Scott, and J. Estes. *Animal Conservation*. 2: 59-68
1999. *Scaphiopus couchii* (Couch's spadefoot toad) USA: Colorado: Bent Co. MacKessy, S.P., D.E. Biggins, and B. Miller. *Herpetological Review*.
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1999. Core areas in reserve design. Noss, R, E. Dinerstein, B. Miller, J. Terborgh. Pages 99-128 *In*. Continental Conservation: Scientific foundations of regional reserve networks. (Eds.) Soulé, M.E. and J. Terborgh. Island Press, Covelo, California.
1999. Values and attitudes toward prairie dogs. Reading, R., B.J. Miller, S.R. Kellert. *Anthrozoos* 12: 43-52.
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1999. Reintroducing Animals into the wild: Lessons from the giant panda (in Chinese and English). Reading, R. and B. Miller. Pages 18-29 *In* International Workshop on the Feasibility of Giant Panda Re-introduction: September 25-29, 1997, Wolong Nature Reserve, Sichuan, China. (Eds.) Mainka, S.A., Lu Zhi, Yu Changqing, Li Zhong, Li Ning, Zhang Xu, Zhou Zhihua, D. Crawford, and D. Ferraro. China Forestry Publishing House, Peking, China.
2000. The role of prairie dogs as keystone species: A response to Stapp. Miller, B., R. Reading, J. Hoogland, T. Clark, G. Ceballos, R. List, S. Forrest, L. Hanebury, P. Manzano, J. Pacheco, D. Uresk. *Conservation Biology* 14: 318-321.
2000. The Importance of Improving Evaluation in Conservation. Kleiman, D.G., R.P. Reading, B.J. Miller, T.W. Clark, J. M. Scott, J. Robinson, R.L. Wallace, R. Cabin, and F. Felleman. *Conservation Biology*: 14: 356-365.
2000. Introduction to endangered animals: conflicting issues. Miller, B. and R.P. Reading. Pages xiii-xviii *In* Endangered Animals: Conflicting Issues. (Eds.) Reading, R. and B. Miller. Greenwood Press, Westport, Connecticut.

2000. Black-footed Ferret (*Mustela nigripes*). Miller, B., R.P. Reading, and T.W. Clark. Pages 54-59 *In* Endangered Animals: Conflicting Issues. (Eds.) Reading, R. and B. Miller. Greenwood Press, Westport, Connecticut.

2000. Jaguar (*Panthera onca*). Núñez, R., C. López-González, and B. Miller. Pages 159-163 *In* Endangered Animals: Conflicting Issues. (Eds.) Reading, R. and B. Miller. Greenwood Press, Westport, Connecticut.

2000. Conclusions: causes of endangerment and conflicts in recovery. Reading, R.P. and B.J. Miller. Pages 302-312 *In* Endangered Animals: Conflicting Issues. (Eds.) Reading, R. and B. Miller. Greenwood Press, Westport, Connecticut.

2000. Food habits of jaguars and pumas in Jalisco, Mexico. Núñez, R., B. Miller, and F. Lindzey. *Journal of Zoology*, London 252: 373-379.

2000. Radio-triangulation and program TRITEL for wildlife research: an instruction manual. Biggins, D.E., L.R. Hanebury, J.L. Godbey, and B.J. Miller. U.S. Geological survey, Fort Collins Science Center, 2150 Centre Ave., Building C, Fort Collins, Colorado 80526

2001. The rewilding approach to restoring the Sky Islands region of Southwestern North America. Dugelby, B., D. Foreman, R. List, B. Miller, J. Humphrey, M. Seidman, and R. Howard. Pp. 65-81 *In* Large mammal restoration: Challenges for the 21<sup>st</sup> Century. (Eds.) D.S. Maehr, R.F. Noss, and J.L. Larkin. Island Press, Covelo CA

2001. Interdisciplinary problem solving in carnivore conservation. Clark, T. W., D. J. Mattson, R. P. Reading, and B. J. Miller. Pp. 223-240 *In* Carnivore Conservation. (Eds.) Gittleman, J.L., S. M. Funk, D. W. Macdonald, and R. K. Wayne (eds.). Cambridge University Press, Cambridge, UK.

2001. Translocation. Reading, R.P. and B. Miller. Pp. 1262-1263 *In* Encyclopedia of the world's zoos. C. Bell (ed.). Fitzroy Dearborn Publishers, Chicago Illinois.

2001. Release and reintroduction of species. Reading, R.P. and B. Miller. Pp. 1053-1057 *In* Encyclopedia of the world's zoos. C. Bell (ed.). Fitzroy Dearborn Publishers, Chicago Illinois.

2001. The importance of large carnivores to healthy ecosystems. Miller, B., B. Dugelby, D. Foreman, C. Martinez del Río, R. Noss, M. Phillips, R. Reading, M.E. Soulé, J. Terborgh, L. Willcox. *Endangered Species UPDATE* 18: 202-209.

2002. The black-tailed prairie dog: Threats to survival and a plan for conservation. Miller, B. and R.P. Reading. *Wild Earth* 12: 44-53.

2002. Do jaguars (*Panthera onca*) depend on large prey? Lopez Gonzalez, C. A. and B. J. Miller. *Western North American Naturalist* 62: 218-222.

2002. Ecología del jaguar en la reserva de la biosfera Chamela-Cuixmala, Jalisco, Mexico. Nuñez, R., B. Miller, and F. Lindzey. Pages 107-126 *In* El jaguar en el nuevo milenio. (Eds.) Medellín, R.A., C. Equihua, C.L.B. Chetkiewicz, P.G. Crawshaw, A. Rabinowitz, K. H. Redford, J. G. Robinson, E.W. Sanderson, y A.B. Taber). Universidad Nacional Autónoma de México/Wildlife Conservation Society. Mexico D. F.

2002. Por qué conservar al jaguar? Miller, B., A. Rabinowitz, y H. Quigley. Pages 303-316 *In* El jaguar en el nuevo milenio. (Eds.) Medellín, R.A., C. Equihua, C.L.B. Chetkiewicz, P.G. Crawshaw, A. Rabinowitz, K.H. Redford, J.G. Robinson, E.W. Sanderson, y A.B. Taber. Universidad Nacional Autónoma de México/Wildlife Conservation Society. Mexico D. F.

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2002. Black-tailed prairie dog conservation: New approach for a 21<sup>st</sup> Century challenge. Reading, R.P., T.W. Clark, L. McCain, and B.J. Miller. Pp. 162-170 *in* An interdisciplinary approach to endangered species recovery: Concepts, applications, cases. Special Issue, *Endangered Species UPDATE* 19.

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2003. A conservation vision for the Southern Rockies. Pearson, M. D. Foreman, B. Miller, J. Smith, T. Hogan, and M. Soulé. Pp. 87-112 in *The Southern Rockies Wildlands Network Vision: A science-based Approach to Rewilding the Southern Rockies* (Eds.) Miller, B., D. Foreman, M. Fink, D. Shinneman, J. Smith, M. DeMarco, M. Soulé, R. Howard. Colorado Mountain Club Press, Denver, Colorado.

2003. Implementation and conservation action. Smith, J., J. Clanahan, R. Howard, D. Foreman, R. Reading, and B. Miller. Pp. 115-133 in *The Southern Rockies Wildlands Network Vision: A science-based Approach to Rewilding the Southern Rockies* (Eds.) Miller, B., D. Foreman, M. Fink, D. Shinneman, J. Smith, M. DeMarco, M. Soulé, R. Howard. Colorado Mountain Club Press, Denver, Colorado.

2003. Focal Species Accounts in the Southern Rockies. Parsons, D., B. Miller, A. young, K. Kunkle, P. Paquet, M. Phillips, and M. Seidman. Pp. 151- 200 in *The Southern Rockies Wildlands Network Vision: A science-based Approach to Rewilding the Southern Rockies* (Eds.) Miller, B., D. Foreman, M. Fink, D. Shinneman, J. Smith, M. DeMarco, M. Soulé, R. Howard. Colorado Mountain Club Press, Denver, Colorado.

2003. The Southern Rockies Wildlands Network Vision. Miller, B., D. Foreman, M. Fink, D. Shinneman, J. Smith, M. DeMarco, M. Soulé, R. Howard. Pp. 15-18 in *Designing Protected Areas: Wild Places for Wild Life*. (Ed.) B. Oosenbrug. Canadian Council on Ecological Areas (CCEA) and Circumpolar Protected Areas (CPAN) Yellowknife, Northwest Territories, Canada.

2004. Evaluating the conservation mission of zoos, aquariums, botanical gardens, or natural history museums. Miller, B., W. Conway, R.P. Reading, C. Wemmer, D. Wildt, D. Kleiman, S. Monfort, A. Rabinowitz, B. Armstrong, and M. Hutchins. *Conservation Biology* 18: 86-93.

2004. Conservation and behavior: Species reintroduction. Reading R.P., D.G. Kleiman, and B. Miller. Pp. 425-435 in *Encyclopedia of Animal Behavior* (Ed.) M. Bekoff. Greenwood Press, Westport Connecticut, USA.

2005. Strongly interacting vertebrate species: Conservation policy, management, and ethics. Soulé M.E., J.A. Estes, B. Miller, and D.L. Honnold. *BioScience*. 55: 168-176.

2005. Understanding and Resolving the Black-tailed Prairie Dog Conservation Challenge. Reading, R. P., L. McCain, T. W. Clark, and B. J. Miller. Pp. 209-223 In: *People and Wildlife: Conflict and Co-existence*. R. Woodroffe, S. Thrigood, and A. Rabinowitz (Eds.). Cambridge University Press, Cambridge, UK.

2005. The influence of persuasive arguments on public attitudes toward a proposed wolf

reintroduction in the Southern Rockies. Meadow, R., R.P. Reading, M. Phillips, M. Mehrenger, and B.J. Miller. *Wildlife Society Bulletin* 33: 154-163.

2005. Understanding the controversy surrounding black-tailed prairie dog restoration efforts. Reading, R.P., L.A. McCain, T.W. Clark, B.J. Miller, Pp. 166-189 In: *Facets of grassland restoration*. A Struchov and J. Kuleshova (Eds.). Biodiversity Conservation Center, Moscow, Russia.

2006. Radio-telemetry for black-footed ferret research and monitoring. Biggins, D.E., J.L. Godbey, B.J. Miller, and L.R. Hanebury. Pp. 175-190 In: *Proceedings of the symposium on the status of the black-footed ferret and its habitat*. J.E. Roelle, B.J. Miller, J.L. Godbey, and D.E. Biggins, (Eds.). U.S. Geological Survey. Reston, Virginia, USA.

2006. The prairie dog as a keystone species. Kotliar, N.B., B.J. Miller, R.P. Reading, and T.W. Clark. Pp. 53-64 In *Conservation of the black-tailed prairie dog: Saving North America's Western Grasslands*. J.L. Hoogland (Ed.). Island Press, Washington DC.

2006. A proposal for more effective conservation of prairie dogs. B.J. Miller and R.P. Reading. Pp. 248-260. In *Conservation of the black-tailed prairie dog: Saving North America's Western Grasslands*. J.L. Hoogland (Ed.). Island Press, Washington DC.

In press. Comadrejas, *Mustela frenata* Lichtenstein, 1831. Miller, B., R. Petazzi, R. List. Pages XX In *Atlas Mastozoológico de Mexico*, Boletín 4, Anexo Técnico, Prensa de la UNAM, Mexico D.F.

## **BOOKS**

1988. Conservation and behavior of the endangered black-footed ferret (*Mustela nigripes*) with a comparative analysis of reproductive behavior between the black-footed ferret and the congeneric domestic ferret (*Mustela putorius furo*). Miller, B.J. Ph.D. dissertation, University of Wyoming, Laramie, Wyoming.

1993. Descriptive ethology of the endangered black-footed ferret. Miller, B.J. and S.H. Anderson. *Advances in Ethology*. Paul Parey Press, Berlin. (Monograph).

1993. Management of Prairie Dog Complexes for Black-footed Ferret Reintroduction. (Eds.) Oldemeyer, J., D. Biggins, B. Miller, R. Crete. U.S. Fish and Wildlife Service Publications, Fort Collins, Colorado.

1996. *Prairie Night: Conservation of the Black-footed Ferret*. Miller, B., R. Reading, and S. Forrest. Smithsonian Institution Press, Washington D.C.

2000. *Endangered Animals: Conflicting Issues*. (Eds.) Reading, R. and B. Miller. Greenwood

Press, Westport, Connecticut.

2000. Radio-triangulation and program TRITEL for wildlife research: an instructional manual. Biggins, D.E., L.R. Hanebury, J.L. Godbey, and B.J. Miller. Fort Collins Science Center, U.S. Geological Survey. Fort Collins, Colorado.

2003. The Southern Rockies Wildlands Network Vision: A science-based Approach to Rewilding the Southern Rockies (Eds.) Miller, B., D. Foreman, M. Fink, D. Shinneman, J. Smith, M. DeMarco, M. Soulé, R. Howard. Colorado Mountain Club Press, Denver, Colorado.

2006. Black-footed ferret recovery: Progress and continuing challenges. (Eds.) Roelle, J.E., B.J. Miller, J.L. Godbey, and D.E. Biggins. U.S. Geological Survey, Reston, Virginia.

In press. Feasibility of reintroducing wolves into the Southern Rockies Ecosystem. (Eds.) Phillips, M., B. Miller, and R. Reading. Colorado Mountain Club Press, Denver, Colorado.

### **BOOK REVIEWS**

(for) Wild Earth 11: 70-71 (2001)

Carnivores in Ecosystems: The Yellowstone experience

Edited by T.W. Clark, A.P. Curlee, S.C. Minta, and P.M. Karieva; Yale University Press, New Haven CT.

(for) Perspectives in Biology and Medicine 45: 296-300 (2002) The Eternal Frontier: An Ecological History of North America by Tim Flannery; Atlantic Monthly Press, New York NY.

### **ABSTRACTS AND SCIENTIFIC PRESENTATIONS**

1981. Effect of Oxytocin on Retained Placentas. Miller, B.J. and J.R. Lodge. Journal of Animal Science 53: Supp. 1 p. 350 (Abstract)

1981. Influence of sperm storage on binding and penetration of bovine oocytes. Miller, B.J. and C.N. Graves. Journal of Animal Science 53: Supp. 1, p. 349. (Abstract and presentation)

1982. Acrosin content of bovine semen following various periods of in vitro storage in egg yolk citrate at 4 degrees Centigrade. Miller, B.J. and C.N. Graves. Journal of Animal Science 55: Supp. 1, p. 100. (Abstract and presentation)

1983. Non-shivering thermogenic response to brown adipose tissue oxidation in the badger. Miller, B. and H. Harlow. 54 Annual Meeting Colorado/Wyoming Association of Science (Abstract and presentation)

1986. Observations on the 1986 black-footed ferret (*Mustela nigripes*) captive breeding program.

At "Workshop on the black-footed ferret and small population biology as they relate to conservation, August 13-15, 1986, Laramie Wyoming. co-presented with M. DonCarlos).

1987. A habitat model for the black-footed ferret. At "Eighth Great Plains Wildlife Damage Control Workshop". April 28-30, 1987 (presentation).

1988. Seminar at University of Wyoming: Breeding behavior of the black-footed ferret, Laramie, Wyoming.

1989. Predator avoidance behavior of captive-raised ferrets. Miller, B., D. Biggins, C. Wemmer, R. Powell, and L. Calvo. 64th Meeting Northeast Society of Animal Behavior (Abstract and presentation)

1989. Seminar at the Conservation and Research Center of the Smithsonian Institution: Life history and behavior of the black-footed ferret. Front Royal, Virginia.

1989. Seminar at the National Zoological Park of the Smithsonian Institution: Captive breeding and reintroduction in the conservation of the black-footed ferret. Washington D.C.

1990. Seminar at the Conservation and Research Center of the Smithsonian Institution: Captive breeding and reintroduction research on the ferret. Front Royal, Virginia.

1990. Seminar at U.S. Fish and Wildlife Patuxant Research Station: Captive breeding and reintroduction research on the black-footed ferret. Patuxant, Maryland.

1990. Seminar at Zoo Night for the National Zoological Park of the Smithsonian Institution: Conservation of the endangered black-footed ferret. Washington D.C.

1990. Release of Siberian polecats (*M. eversmanni*) on a prairie dog colony. D.E. Biggins, L.H. Hanebury, B.J. Miller, and R.A. Powell. 70th Annual Meeting of the American Society of Mammologists. June 9-13, 1990, Frostburg MD (abstract and presentation).

1990. Seminar at the Conservation and Research Center of the Smithsonian Institution: Testing release techniques for captive-raised black-footed ferrets using the surrogate Siberian polecat. Front Royal, Virginia.

1991. Presented invited paper on Rehabilitating a Species at National Wildlife Rehabilitators Conference. Schaumburg, Illinois.

1991. Seminar at Centro de Ecologia, Universidad Nacional Autotoma de Mexico: Research on black-footed ferret reintroduction. Mexico City, Mexico.

1992. Seminar at University of Wyoming: Effects of historical colonialism on modern

environmental problems. Laramie, Wyoming.

1992. Seminar at University of Rhode Island: Policy problems in endangered species management. Providence, Rhode Island.

1992. Invited presentation at Sixth World Conference on Breeding Endangered Species in Captivity, 4-6 May Jersey, United Kingdom: Procedure for reintroducing an endangered species, the black-footed ferret.

1995. A grassland reserve in northern Chihuahua. Ceballos, G. and B. Miller. P.12 in Fifth International Rangeland Congress, Department of Rangeland Resources. (ed.) N. West. Salt Lake City Utah (abstract)

1996. Contributions to the natural history of pumas in a dry tropical forest of western Mexico. C.A. Lopez-Gonzalez, E. Martinez-Meyer, J.W. Laundré, B. Miller, and A. Gonzalez-Romero. Fifth Mountain Lion Workshop, 27 February to 1 March 1996 (Abstract).

1997. Defining success in recovery programs. Society for Conservation Biology, 6 June to 10 June 1997, University of Victoria, Victoria British Columbia (Abstract).

1997. Food habits of jaguar and puma. Nuñez, R. and B. Miller. Seventh International Theriological Congress Conference, Acapulco, Mexico (poster)

1997. Home range, activity, and habitat use by jaguars and pumas in a neotropical dry forest of Mexico. Nuñez, R., B. Miller, and F. Lindzey. Abstracts of Seventh International Theriological Congress, Acapulco, Mexico, September 6-11, 1997.

1997. Zoos and a land ethic vision. Reading, R. and B. Miller. AZA Conference. Albuquerque, New Mexico (Abstract).

1997. Seminar on Ecology of jaguars and pumas in Mexico. Northern Colorado University, Greeley, Colorado.

1997. Seminar on Ecology of jaguars and pumas in Mexico. University of Denver, Denver, Colorado.

1997. Seminar on ecology of jaguars and pumas in Mexico. Colorado University, Boulder, Colorado.

1997. Seminar on ecology of jaguars and pumas in Mexico. Arizona State University, Tempe, Arizona.

1998. Ecological Interactions between jaguars and pumas. AZA Conference, Tulsa, Oklahoma.

1999. Invited presentation “Why conserve Jaguars” in Mexico City at a Wildlife Conservation Society conference for jaguar biologists (Jaguars in the New Millennium).
1999. Seminar on ecology of jaguars and pumas in Mexico. University of Wyoming Research Station, Grand Teton National Park, Wyoming.
1999. Presentation on the importance of large carnivores. Conservation Night at the Denver Zoological Foundation, Denver, Colorado.
2000. Seminar on ecology of jaguars and pumas in Mexico. New Mexico State University, Las Cruces, New Mexico.
2000. Seminar on ecology of jaguars and pumas in Mexico. Denver Museum of Natural History, Denver, Colorado.
2001. Keynote address for The Colorado Wildlife Society Annual Meeting. Grand Junction, Colorado
2001. Seminar on role of large carnivores. University of Wyoming, Laramie, Wyoming.
2001. Invited Presentation on Large carnivores and protected areas. Zoos Committing to Conservation; Annual Conference, Brevard Zoo, Florida.
2002. Seminar on protected area theory. Whitehorse Community College, Whitehorse, Yukon.
2002. Can Colorado be Wild Without Wolves? Conservation Night, Denver Zoological Foundation, Denver, Colorado.
2003. Invited presentation on The Southern Rockies Wildlands Network Vision. A conference to mark the 75<sup>th</sup> Anniversary of the Rocky Mountain Biological Laboratory in Crested Butte, Colorado.
2003. Seminar on the The Southern Rockies Wildlands Network Vision. Draper Museum of Natural History, Buffalo Bill Cody Complex, Cody, Wyoming
2003. Invited presentation on The Southern Rockies Wildlands Network Vision at Designing Protected Areas: Wild Places for Wild Life. A Canadian Council on Ecological Areas (CCEA) and Circumpolar Protected Areas (CPAN) Workshop, Yellowknife, Northwest Territories.
2004. Presentation on The Southern Rockies Wildlands Network Vision at the Rocky Mountain National Park winter Lyceum, Estes Park, Colorado.

2004. Presentation on The Southern Rockies Wildlands Network Vision in Whitehorse, Yukon.

2004. Panel Discussion on the future of the black-footed ferret. Black-Footed Ferret Conservation Conference in Fort Collins, Colorado (by U.S. Fish and Wildlife Service and U.S. Geological Survey).

2004. Presentation on The Southern Rockies Wildlands Network Vision at the National Park Service / University of Wyoming Research Station, Grand Teton National Park

2005. Presentation on The Southern Rockies Wildlands Network Vision at New Mexico Highlands University Las Vegas, New Mexico.

### **POPULAR PUBLICATIONS**

21 popular articles; 19 in English and 2 in Spanish.

### **POPULAR PRESENTATIONS**

3 to 10 popular presentations a year over carnivores, conservation, and endangered species.