
GREGORY A. SMITH

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I am a terrestrial ecologist, studying birds and mammals to investigate how and why populations and communities are structured across space and time. I am also interested in patterns of biodiversity and how that diversity might be explained and preserved. In general, my research takes a three-tiered approach; asking questions at the species, community, and landscape levels.

EDUCATION:

Ph.D., 2007, Zoology, University of Oklahoma.

Advisor: Mark V. Lomolino (Co-Advisor: William J. Matthews)

“Structure and assembly of avian communities associated with black-tailed prairie dog ecosystems”

Concentration: Conservation Biology, Biogeography, Macroecology

M.S., 1996, Biological Sciences (Statistics minor), Mississippi State University.

Advisor: Jerome A. Jackson

“Morphology and habitat use of wintering American Kestrels (*Falco sparverius*) in east Mississippi”

Concentration: Vertebrate Ecology (Mammalogy / Ornithology), Statistics

B.S., 1992, Zoology, University of Florida.

Concentration: General Zoology

H.S. Diploma, 1988, Nathan Bedford Forest Senior High School, Jacksonville, FL.

PROFESSIONAL EXPERIENCE:

Graduate Faculty, Department of Biology, University of Akron, Fall 2007 - Present.

Manager, Martin Center for Field Studies and Environmental Education, Department of Biology, University of Akron, Summer 2006 - Present.

Assistant Professor and Director of Natural Areas & Schmidt Museum of Natural History,

Department of Biological Sciences, Emporia State University, Fall 2002 - Spring 2006.

Heritage Zoologist (Interim), Oklahoma Natural Heritage Inventory / Oklahoma Biological Survey, University of Oklahoma, Summer 2001 - Summer 2002.

Graduate Research Assistant (Research Coordinator), Oklahoma Natural Heritage Inventory / Oklahoma Biological Survey, University of Oklahoma, Summer 1996 - Summer 2001.

Adjunct Instructor, Department of Biological Sciences, Division of Science and Mathematics, Oklahoma City Community College, Fall 2000.

Teaching Assistant, Department of Zoology, University of Oklahoma, Spring 1999 and Spring 2000.

Teaching Assistant, Department of Biological Sciences, Mississippi State University, Fall 1993 - Spring 1996.

Field Technician, Gulf Engineers & Consultants, Baton Rouge, Louisiana, Fall 1995 and Winter 1996.

Field Assistant, Eco-Inventory Studies, Inc., Mississippi State, Mississippi, Fall 1994 and Spring 1995.

Teaching Assistant, Meridian Extension Campus of Mississippi State University, Fall 1994.

Crew member, White Oak Plantation / Wildlife Conservation Center, Yulee, Florida, Summer 1991.

RESEARCH EXPERIENCE:

Biotic homogenization and long-term population dynamics of small mammals in the Cuyahoga Valley, Ohio: small mammal trapping, GIS. University of Akron, Summer 2006 - Present.

Impacts of biotic homogenization on community structure of terrestrial vertebrates at the Flint Hills National Wildlife Refuge, Kansas: small mammal and herpetofauna trapping, recording incidental observations of terrestrial vertebrates, GIS. Emporia State University, Spring 2004 - Summer 2006.

Long-term population dynamics of small mammals in northeastern Kansas: small mammal trapping. Emporia State University, Fall 2003 - Summer 2006.

Historic patterns in small mammal community structure at the Ross Natural History Reservation, Lyon County, Kansas: small mammal trapping, mammal tracking. Emporia State University, Fall 2002 - Fall 2003.

Terrestrial vertebrate surveys of Washita Battlefield National Historic Site, National Park Service: bird surveys, small mammal trapping, mammal tracking, herp surveys. Oklahoma Natural Heritage Inventory / Oklahoma Biological Survey, University of Oklahoma, Summer 2000 - Summer 2004.

Biogeography and biodiversity of prairie dog (*Cynomys ludovicianus*) towns in Oklahoma: surveying prairie dog towns, bird censuses, small mammal trapping, mammal tracking, herp surveys, mapping, GIS. Oklahoma Natural Heritage Inventory / Oklahoma Biological Survey, University of Oklahoma, Summer 1996 - Fall 1999.

Ecology of American Kestrels (*Falco sparverius*) in northeastern Mississippi: censusing, trapping and banding, habitat analysis. Mississippi State University, Fall 1993 - Spring 1996.

Habitat analysis of Red-cockaded Woodpecker (*Picoides borealis*) colonies at Fort Polk, Louisiana: censusing, trapping and banding, habitat surveys (tree height, dbh, basal area). Mississippi State University, Fall / Winter 1994-1995 and 1995-1996.

TEACHING EXPERIENCE:

Department of Biology, University of Akron, Summer 2006 - Present. (Classes taught: Conservation Biology, Ornithology and Lab)

Department of Biological Sciences, Emporia State University, Fall 2002 - Spring 2006. (Classes taught: Animal Behavior and Lab, Biogeography, Conservation Biology, Environmental Biology, Introduction to GeoSpatial Analysis, Mammalogy and Lab, Ornithology and Lab, Wetland Environments, Wildlife Management and Lab, Wildlife Management Policies)

Department of Biological Sciences, Division of Science and Mathematics, Oklahoma City Community College, Fall 2000. (Class taught: General Zoology and Lab)

Department of Zoology, University of Oklahoma, Spring 1999 and Spring 2000. (Class taught: Principles of Ecology Lab)

Department of Biological Sciences, Mississippi State University, Fall 1993 - Spring 1996. (Classes taught: Animal Biology Lab, Introduction to Natural History Lab, Mammalogy Lab, Ornithology Lab, Principles of Zoology Lab)

Meridian Extension Campus of Mississippi State University, Fall 1994. (Class taught: Mammalogy Lab)

DePaul School of Northeast Florida, Jacksonville, Florida. (Taught general math to elementary school children suffering from dyslexia.) Summers of 1986, 1987, and 1988.

GRANTS AND SCHOLARSHIPS:

Research Experience for Undergraduates, National Science Foundation. 2007. Ecology at the urban-rural interface. Co-Investigator with R. Mitchell and J. Pan. (\$390,839 – In Review)

Stoller Education Fund, University of Akron. 2007. Hands-on environmental education at an off-campus facility. Co-Investigator with R. Mitchell. (\$9,950)

Departmental Research Support, University of Akron. 2006. Effects of energy flow through a grassland system: biodiversity as a function of fertilization and litter removal. Co-Investigator with R. Mitchell and J. Pan. (\$5,000)

Prairie Biotic Research, Inc. 2004. Small mammal community structure within a patchy landscape: the impacts of biotic homogenization. (\$1,000 – Not Funded)

Faculty Research and Creativity Committee, Emporia State University. 2004. The impacts of biotic homogenization on mammal richness and abundance on the Flint Hills National Wildlife Refuge. (\$13,023)

University of Kansas Field Station and Ecological Reserves. 2003-2005. Long-term research of small mammal population dynamics in northeastern Kansas. (\$800)

Cooperative Research at Undergraduate Institutions, National Science Foundation. 2003. Spatial and temporal dynamics of terrestrial communities within an isolated nature reserve: implications for applied conservation biology. Co-Principal Investigator with J. Aber, F. Pavri, R. Sleezer, and M. Sundberg. (\$293,358 – Not Funded)

Faculty Research and Creativity Committee, Emporia State University. 2003. Historic patterns in small mammal community structure at the Ross Natural History Reservation, Lyon County, Kansas: laying the groundwork for a long-term monitoring program. (\$13,233)

National Park Service, U.S. Department of the Interior. 2001. Baseline inventories of avian species at Washita Battlefield National Historic Site, Oklahoma. Co-Investigator with M. Lomolino. (\$20,000)

Graduate Student Senate Conference and Creative Exhibition Grant, University of Oklahoma. 2001. (\$250)

M. Blanche Adams and M. Frances Adams Memorial Academic Year Scholarship. 2000 - 2001. Department of Zoology, University of Oklahoma. (\$3,000)

National Park Service, U.S. Department of the Interior. 2000. Terrestrial vertebrate survey (amphibians, reptiles, and mammals) of Washita Battlefield National Historic Site, Oklahoma. Co-Investigator with M. Lomolino. (\$15,707)

M. Blanche Adams and M. Frances Adams Memorial Summer Research Scholarship. 2000. Department of Zoology, University of Oklahoma. (\$2,500)

George Miksch Sutton Scholarship in Ornithology. 1999. Structure and assembly of avian communities associated with the prairie dog ecosystem in Oklahoma. (\$5,000)

Graduate Student Senate Research and Creative Activity Grant, University of Oklahoma. 1999. The role of prairie dogs in structuring terrestrial vertebrate communities within the prairie ecosystem of the Oklahoma Panhandle. (\$275)

AWARDS AND HONORS:

National Residence Hall Honorary "Favorite Faculty." 2007. The University of Akron.

Elected Full Member, Sigma Xi, The Scientific Research Society, Spring 2003.

Outstanding Teaching Assistant of the Year, 1995-1996. Department of Biological Sciences, Mississippi State University.

Best Paper Award: non-USM student. 12th Annual Symposium of Graduate Student Research in the Biological Sciences. University of Southern Mississippi, Hattiesburg, Mississippi, 30 March 1996.

Elected Associate Member, Sigma Xi, The Scientific Research Society, Spring 1995.

Dean's List, University of Florida, Fall 1990.

Honors High School Graduate, June 1988.

PROFESSIONAL AFFILIATIONS:

American Ornithologists' Union
American Society of Mammalogists

Ohio Ornithological Society
Society for Conservation Biology

Association of Field Ornithologists
Ecological Society of America
Great Plains Natural Science Society

The Wildlife Society
Wilson Ornithological Society

SERVICE:

Judge, Biology Undergraduate Research Symposium, University of Akron, Spring 2007.

University of Akron Representative to the Ohio Biological Survey, Spring 2007 – Present.

Member, Promotion of and Departmental Funding Committee, Department of Biology, University of Akron, Fall 2007 - Present.

Member, Campus Green Team, University of Akron, Fall 2007 - Present.

Member, Committee on Small and New Field Stations, Organization of Biological Field Stations, Fall 2006 - Present.

Coordinator, Brown Bag EcoLunch Seminar Series, Department of Biology, University of Akron, Fall 2006 - Spring 2007.

Member, Field Station Committee, University of Akron, Summer 2006 - Present.

Invited Presenter (Topic: Conservation of Endangered Species), Boy Scout Troop #149, Lebo, KS, 11 April 2006.

Member, Council-at-Large, Kansas Academy of Science, Spring 2006.

Invited Presenter (Topic: Common Birds and Mammals of Kansas), Cub Scout Troop #3079, Pomona Lake, KS, 25 June 2005.

Member, Editorial Committee, The Kansas School Naturalist, Summer 2005 - Spring 2006.

Vice-President, Emporia State University Chapter of Sigma Xi, Spring 2005 - Spring 2006.

Secretary/Treasurer, Kansas Chapter of the Wildlife Society, Spring 2005 - Spring 2006.

Chair, Local Planning Committee, Kansas Chapter of the Wildlife Society Spring Meeting, Emporia, KS, 4-5 March 2005.

Invited Presenter (Topic: Natural Resources and Endangered Species), Cub Scout Troop #3079, Ottawa, KS, 1 March 2005.

Vice-Chairman, Kansas Nongame Wildlife Advisory Council, Kansas Department of Wildlife and Parks, Fall 2004 - Spring 2006.

Chair, Zoology Emphasis Committee, Department of Biological Sciences, Emporia State University, Fall 2004 - Spring 2006.

Associate Editor for Ornithology, *The Prairie Naturalist*, Spring 2004 - Present.

Secretary, Emporia State University Chapter of Sigma Xi, Spring 2003 - Spring 2005.

Faculty Sponsor, Student Chapter of Ducks Unlimited, Emporia State University, Fall 2004 - Spring 2006.

Manuscript referee: *Auk*, *Biological Conservation*, *Ecography*, *Florida Field Naturalist*, *Journal of Arid Environments*, *Journal of Range Management*, *Prairie Naturalist*, *Southwestern Naturalist*, *Transactions of the Kansas Academy of Science*, *Western North American Naturalist*.

Member, Student Health Center Advisory Committee, Emporia State University, Fall 2003 - Spring 2004.

Invited Presenter (Topic: Common Bird Identification), University of Scouting, Topeka, KS, 22 November 2003.

Member, Kansas Nongame Wildlife Advisory Council, Kansas Department of Wildlife and Parks, Fall 2003 - Spring 2006.

Invited Presenter (Topic: Mammal Identification, Skulls), Lawrence Biology Club (Middle School), Lawrence, KS, 10 November 2002.

Chair, Local Planning Committee, Central Plains Society of Mammalogists Annual Meeting, Emporia, KS, 11-12 October, 2002.

Invited Participant, Mountain Plover and Black-tailed Prairie Dog Workshop, The Nature Conservancy, Denver, CO, 10-11 October, 2002.

Judge, 4-H Wildlife Exhibits, Kansas State Fair, Hutchinson, KS, 7 September 2002.

Chair, Natural Areas Advisory Committee, Emporia State University, Fall 2002 - Spring 2006.

Member, Environmental Biology and Zoology Emphasis Committees, Department of Biological Sciences, Emporia State University, Fall 2002 - Spring 2006.

Member, GeoSpatial Analysis Committee, Emporia State University, Fall 2002 - Spring 2006.

Faculty Sponsor, Biology Club, Emporia State University, Fall 2002 - Spring 2006.

Member, Biological Diversity Working Group, The Wildlife Society, Fall 2001 - Spring 2006.

Member, Conservation Exchange Group, Conservation Working Group including Oklahoma Natural Heritage Inventory, Oklahoma Biological Survey, Oklahoma Department of Wildlife Conservation, US Fish and Wildlife Service, and The Nature Conservancy, Summer 2001 - Summer 2002.

Member, Oklahoma Black-tailed Prairie Dog State Working Group, Oklahoma Department of Wildlife Conservation, Oklahoma City, OK, Fall 1999 - Summer 2002.

Member, Core Database Development Working Group, Oklahoma Biological Survey, University of Oklahoma, Summer 2001 - Summer 2002.

Member, Internship Committee, Oklahoma Biological Survey, University of Oklahoma, Summer 2001 - Summer 2002.

Invited Presenter, Wildlife Fair, Jefferson Elementary School, Norman, OK, Fall 2000 and Fall 2001.

President, Zoological Association of Graduate Students (ZAGS), Department of Zoology, University of Oklahoma, 1999 - 2000.

Member, Library Committee, Department of Zoology, University of Oklahoma, 1999 - 2000.

Secretary / Treasurer, Zoological Association of Graduate Students (ZAGS), Department of Zoology, University of Oklahoma, 1998 - 1999.

Member, Graduate Studies Committee, Department of Zoology, University of Oklahoma, 1997 - 1998.

Contributor, "Biosurvey News," Newsletter of the Oklahoma Biological Survey, University of Oklahoma, Fall 1999.

Contributor, "Recent Literature", North American Bird Bander, December 1996 - Present.

Chair, Scientific Session (Raptor Morphology), American Ornithologists' Union / Raptor Research Foundation Joint Meeting, 13-17 August 1996, Boise, ID.

Member, Local Committee, Inland Bird Banding Association / Mississippi Ornithological Society Joint Meeting, 21-23 October 1994, Biloxi, MS.

Member, Biology Club (BIO), University of Florida, 1990-1992.

INVITED TALKS:

A Natural History of Kestrels. Greater Akron Audubon Society Annual Picnic, 26 June 2007, Bath, OH.

The University of Akron Field Station: ecology at the urban-rural interface (Co-Author with R. Mitchell). Colloquium Series, Department of Geography and Planning, University of Akron, 16 February 2007, Akron, OH.

The politics of conservation: a case study on the Great Plains. Brown Bag EcoLunch Seminar Series, Department of Biology, University of Akron, 6 September 2006, Akron, OH.

Backyard birding basics. Emporia Lawn, Flower, and Garden Show, 26 February 2005, Emporia, KS.

The plight of the prairie dog: history, politics, and conservation on the Great Plains. Keynote Address, Central Plains Society of Mammalogists Annual Meeting, 16 October 2004, Fort Hays State University, Hays, KS.

Science, society, and the fate of endangered species. Sigma Xi Science Night in Emporia Series, 28 September 2004, Emporia, KS.

Prairie dog towns as islands: theory and applications. Ecology and Evolutionary Biology Seminar Series, Kansas State University, 29 January 2004, Manhattan, KS.

Birds and bird feeding. Emporia Garden Club, 21 January 2004, Emporia, KS.

Ecology and conservation of black-tailed prairie dogs. Department of Biological Sciences Seminar Series, Wichita State University, 5 November 2003, Wichita, KS.

Terrestrial vertebrates of the Great Plains: community structure and the role of black-tailed prairie dogs. University of Kansas Field Station and Ecological Reserves Seminar Series,

University of Kansas, 9 May 2003, Lawrence, KS.

The American Kestrel: a natural history of our smallest falcon. Cleveland County Audubon Society, 11 April 2002, Norman, OK.

PAPERS PRESENTED: (* = Student co-author)

Humphries, M. A.*, and **G. A. Smith**. 2005. Effects of small scale habitat fragmentation on space use by *Sigmodon hispidus* and *Microtus ochrogaster*. Southwestern Association of Naturalists Annual Meeting, 14-16 April 2005, Huntsville, TX.

Humphries, M.*, and **G. A. Smith**. 2005. Effects of small-scale artificial habitat fragmentation on *Sigmodon hispidus* and *Microtus ochrogaster*. Kansas Chapter of the Wildlife Society Spring Meeting, 4-5 March, Emporia, KS.

Smart, B. F.*, and **G. A. Smith**. 2004. Small mammal response to within patch and landscape scale habitat at the Flint Hills National Wildlife Refuge, Kansas. Central Plains Society of Mammalogists Annual Meeting, 15-16 October, Hays, KS.

Smart, B. F.*, G. L. Knight*, D. L. Jirak*, and **G. A. Smith**. 2003. Historic patterns in small mammal community structure at the Ross Natural History Reservation, Lyon County, Kansas. Central Plains Society of Mammalogists Annual Meeting, 26-28 September, Bull Shoals Field Station (near Branson, MO).

Smith, G. A. 2002. Terrestrial vertebrates of the Great Plains: community structure and the role of black-tailed prairie dogs. Seminar in the Department of Zoology, University of Oklahoma, 4 April, Norman, OK.

Smith, G. A., and M. V. Lomolino. 2001. Black-tailed prairie dogs and the structure of vertebrate communities on the south-central Great Plains. The Wildlife Society Annual Meeting, 25-29 September, Reno, NV.

Smith, G. A., and M. V. Lomolino. 2001. Black-tailed prairie dogs (*Cynomys ludovicianus*) and the structure of terrestrial vertebrate communities. American Society of Mammalogists Annual Meeting, 16-20 June, Missoula, MT.

Lomolino, M. V., and **G. A. Smith**. 2001. Biogeographic dynamics of black-tailed prairie dog (*Cynomys ludovicianus*) towns: patterns of town coverage and persistence. American Society of Mammalogists Annual Meeting, 16-20 June, Missoula, MT.

Lomolino, M. V., and **G. A. Smith**. 1999. Biogeographic dynamics of prairie dog towns. Black-tailed prairie dog workshop, sponsored by U.S. Fish and Wildlife Service, National Wildlife Federation, Multi-state Black-tailed Prairie Dog Working Group, and Arizona

Department of Fish and Game, 30 November - 1 December, Phoenix, AZ.

Lomolino, M. V., R. Channell, and **G. A. Smith**. 1997. Splendid isolation: patterns of geographic range collapse in endangered species. Seventh International Theriological Congress, 6-11 September, Acapulco, Mexico. (Poster)

Smith, G. A., M. V. Lomolino, M. J. Shaughnessy, Jr., and S. G. Shropshire*. 1997. Distribution, persistence, and conservation of black-tailed prairie dog colonies in Oklahoma. Society for Conservation Biology Annual Meeting, 6-9 June, Victoria, British Columbia. (Poster)

Smith, G. A. 1996. Ecomorphology and habitat segregation of American Kestrels wintering in northeastern Mississippi. American Ornithologists' Union / Raptor Research Foundation Joint Meeting, 13-17 August, Boise, ID.

Smith, G. A. 1996. The ecological implications of body size for the habitat segregation of wintering American Kestrels in northeastern Mississippi. Seminar in the Department of Biological Sciences, Mississippi State University, 26 April, Mississippi State, MS.

Smith, G. A. 1996. The importance of body size for the sexual segregation of habitats by wintering American Kestrels (*Falco sparverius*) in northeastern Mississippi. 12th Annual Symposium of Graduate Student Research in the Biological Sciences. University of Southern Mississippi, 30 March, Hattiesburg, MS.

Hole, R. B., Jr. and **G. A. Smith**. 1994. Observer variation as a factor in standardized wing measurements. Inland Bird Banding Association / Mississippi Ornithological Society Joint Meeting, 21-23 October, Biloxi, MS.

PUBLICATIONS: (* = Student co-author)

Smith, G. A., and M. V. Lomolino. In Review. Biogeography and landscape ecology of avian species on black-tailed prairie dog (*Cynomys ludovicianus*) towns. Journal of Biogeography.

Smith, G. A. 2007. Various entries. In Encyclopedia of Oklahoma history and culture. Oklahoma Historical Society, Oklahoma City, OK. (Bison, Deer; <http://digital.library.okstate.edu/encyclopedia/index.html>)

Smith, G. A. 2005. Great wildlife of the Great Plains: a book review. Great Plains Research 15:157-158.

Smith, G. A. 2004. Various entries. In Oklahoma breeding bird atlas (D. L. Reinking, ed.). University of Oklahoma Press, Norman, OK. (American Kestrel, Eastern Kingbird,

Ferruginous Hawk, Horned Lark, Loggerhead Shrike, Long-billed Curlew, Mountain Plover, Northern Harrier, Short-eared Owl, Swainson's Hawk)

Smith, G. A., and M. V. Lomolino. 2004. Black-tailed prairie dogs and the structure of avian communities on the shortgrass plains. *Oecologia* 138:592-602.

Lomolino, M. V., and **G. A. Smith**. 2003. Terrestrial vertebrate communities at black-tailed prairie dog (*Cynomys ludovicianus*) towns. *Biological Conservation* 115:89-100.

Lomolino, M. V., **G. A. Smith**, and V. Vidal*. 2003. Long-term persistence of prairie dog towns: insights for designing networks of prairie reserves. *Biological Conservation* 115:111-120.

Lomolino, M. V., and **G. A. Smith**. 2003. Prairie dog towns as islands: applications of island biogeography and landscape ecology for conserving nonvolant terrestrial vertebrates. *Global Ecology and Biogeography* 12:275-286.

Smith, G. A., and J. A. Jackson. 2002. Gray Kingbird (*Tyrannus dominicensis*). In *The Birds of North America*, No. 668 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Lomolino, M. V., and **G. A. Smith**. 2001. Dynamic biogeography of prairie dog (*Cynomys ludovicianus*) towns near the edge of their range. *Journal of Mammalogy* 82:937-945.

Lomolino, M. V., R. Channell, D. R. Perault, and **G. A. Smith**. 2001. Downsizing nature: Anthropogenic dwarfing of species and ecosystems. Pages 223-243 in *Biotic homogenization* (J. L. Lockwood and M. L. McKinney, eds.). Kluwer / Plenum Press, New York, NY.

Lomolino, M. V., and **G. A. Smith**. 1999. Islands in a sea of grass. *Biosurvey News* 1:4-5.

Smith, G. A. 1997. Morphology and habitat use of wintering American Kestrels (*Falco sparverius*) in east Mississippi. *Wingspan* 6:16 (abstract).

Smith, G. A. and J. A. Jackson. 1994. Red-bellied woodpecker predation on a green anole. *Mississippi Kite* 24:7-8.

REPORTS:

Lomolino, M. V., and **G. A. Smith**. 2007. Baseline avian inventory at Washita Battlefield National Historic Site, Oklahoma. Final report submitted to the National Park Service, Washita Battlefield National Historic Site, Cheyenne, OK.

Lomolino, M. V., and **G. A. Smith**. 2001. Baseline inventory of mammals, reptiles, and amphibians at Washita Battlefield National Historic Site, Oklahoma. Final report submitted to the National Park Service, Washita Battlefield National Historic Site, Cheyenne, OK.