

Alisse Garner Metge

Curriculum Vitae

Education:

2001-2004 M.S., University of Idaho, Moscow, Idaho.
Major: Wildlife Resources
Thesis: Genetic Diversity and Divergence in Fragmented Populations of the Idaho Ground Squirrel (*Spermophilus brunneus brunneus* and *S. b. endemicus*)
GPA 4.0

1992-1995 B.S., Brigham Young University, Provo, Utah.
Double Major: Molecular Biology, emphasis Zoology
Conservation Biology, emphasis Ecology and Systematics
Graduated Magna Cum Laude, GPA 3.92

Work Experience:

2005-Present Independent research and writing about the science-religion interface, while raising my children

Jan.-May 2005 Research Assistant, Department of Fish and Wildlife Resources, University of Idaho, Moscow, Idaho.
Assisted in compiling bibliography for Taylor Ranch (the University's wildlife research station in the Frank Church River of No Return Wilderness), wrote abstracts for articles.

Apr. 2004- May 2005 Research Assistant, Department of Fish and Wildlife Resources, University of Idaho, Moscow, Idaho.
Extracted DNA from elk skin punches (Qiagen), conducted lab work and computer analyses for microsatellites (Genescan and Genotyper software), optimized microsatellite PCR conditions. Also did some optimizing of mitochondrial primers for American dipper.

Aug.- Sep. 2004 Department of Fish and Wildlife Resources, University of Idaho, Moscow, Idaho.
Conducted analyses of Idaho ground squirrel genetics for U.S. Fish and Wildlife Service.

2000-2001 Research Associate I, Myriad Genetics, Inc., Salt Lake City, Utah.
Part of a team working to discover disease-related genes. Screened candidate genes for mutations, analyzed segregation of mutations with disease haplotypes, designed primers (OLIGO software), diluted and optimized new primers, performed PCR and electrophoresis. Occasionally helped with genotyping and pedigree analysis.

1999-2000 Teacher, The Waterford School, Sandy, Utah.
Taught Computer Science (including Microsoft Word, Excel, PowerPoint, Image Composer, typing, HTML and Visual Basic) and Advanced Algebra to middle

and upper school students.

- 1997-1999 Molecular Biology Technologist, Myriad Genetic Laboratories, Salt Lake City, Utah. Quality Control/Reagent Prep Department.
Extracted DNA from blood (Qiagen), prepared and performed quality control on PCR and sequencing reagents, performed experiments to troubleshoot and optimize lab procedures, trained new employees.
- 1996-1997 Lab Aide II, Myriad Genetic Laboratories, Salt Lake City, Utah.
Member of DNA sequencing team that launched BRACAnalysis (the full-sequence diagnostic test for the BRCA1 and 2 genes), October 1996. Maintained and operated ABI 377 automatic DNA sequencers, poured acrylamide gels, trained new employees.
- Summer 1995 Student research assistant, Brigham Young University, Provo, Utah.
Assisted with a study on cutthroat trout microsatellite DNA.
- Summer 1994 Student assistant for National Science Foundation Mathematics Workshop for teachers, Brigham Young University, Provo, Utah.
- Summer 1993 Research assistant, Foundation for Ancient Research and Mormon Studies (FARMS), Provo, Utah
Compiled and synthesized articles on Biblical research.
- 1992-1993 Biology tutor for a high school student, Provo, Utah.
- Summer 1991 Private math teacher, Algebra course, Provo, Utah.

Professional Societies (former member):

Society for Conservation Biology
The Wildlife Society
American Society of Mammalogists

Professional Activities:

Religion and Conservation Biology Working Group of the Society for Conservation Biology
Secretary (2008-2010); Chair of the Curriculum Committee (2008-2009); Ex officio Board Member (2009-2011)
The Wildlife Society Student Chapter, University of Idaho
College of Biology and Agriculture Student Council, Brigham Young University
Molecular Biology Club Officer, Brigham Young University

Honors and Awards:

- 2003 First Place, Life Sciences, Graduate Research Exhibition, University of Idaho (\$350)
2001 Berklund Graduate Research Assistantship, College of Natural Resources, University of Idaho (\$39,668)
1992 Trustees Scholarship (full four-year scholarship), Brigham Young University

- 1994 Phi Kappa Phi
1994 Golden Key National Honors Society

Research Grants Received:

- 2004 U.S. Fish and Wildlife Service (\$2,300) Genetic analyses of Southern Idaho ground squirrel 2004 samples.
- 2003 Bureau of Wildlife (\$2,600) Genetic analyses of Southern Idaho ground squirrel progeny from captive breeding program at Zoo Boise (with J. Rachlow)
- 2003 American Society of Mammalogists (\$1500) “The Idaho Ground Squirrel: Understanding Fragmentation and Genetics”
- 2002 Bureau of Land Management (\$10,120) “Idaho Ground Squirrel Genetics and Conservation” (with J. Rachlow)
- 2002 Wildlife Conservation and Restoration Program (\$16,900) “Idaho Ground Squirrel (*Spermophilus brunneus*) Conservation Genetics” (with J. Rachlow)
- 2001 Idaho Power Company (\$5,000) “Idaho Ground Squirrel (*Spermophilus brunneus*) Genetics: Background, Current Issues, and Proposed Research Questions” (with J. Rachlow)

Presentations at Professional Meetings:

- Garner, A.** 2006. Communicating for conservation: perspectives on the science-religion dialogue. The Society for Conservation Biology. San Jose, CA (poster)
- Garner, A., J. L. Rachlow, and J. F. Hicks.** 2003. Patterns of genetic diversity and its loss across mammalian taxa: implications for the conservation of the threatened Idaho ground squirrel. The Society for Conservation Biology. Duluth, MN. (oral)
- Garner, A., J. L. Rachlow, and J. F. Hicks.** 2003. Biodiversity loss across mammalian taxa: Are we losing genetic variability in threatened populations? The American Society of Mammalogists. Lubbock, TX. (oral)
- Garner, A. and J.L. Rachlow.** 2003. Genetics and conservation of an Idaho endemic, the Idaho ground squirrel. Idaho Chapter, The Wildlife Society. Boise, ID. (oral)
- Garner, A., J.F. Hicks, and J.L. Rachlow.** 2002. Understanding genetic diversity in wildlife: A comparative review of allozyme and microsatellite diversity in wild mammals. The Wildlife Society. Bismarck, ND. (poster)

Invited Presentations:

- Metge, A.G.** 2014 Science and religion: an LDS perspective. Fireside for Palouse River Ward, Moscow, ID.
- Metge, A. G.** 2012 Provident living and stewardship of earthly blessings: principles and practices of consecrated resource use. Meeting of Bowdish Ward Relief Society, Spokane Valley, WA.
- Metge, A. G. and J. Rachlow.** 2006. Remarks at the opening of the Idaho ground squirrel exhibit, Zoo Boise, Boise, ID.
- Metge, A. G.** 2004. Southern Idaho ground squirrels: review of genetics and conservation options. Meeting of Zoo Boise and other biologists involved in the southern Idaho ground squirrel captive breeding program. Boise, ID.
- Metge, A. G.** 2004. Review of northern Idaho ground squirrel genetics. Meeting of agencies

- involved in Idaho ground squirrel conservation. Boise, ID.
- Metge, A. G.** 2004. Conservation genetics of southern Idaho ground squirrels. Meeting of agencies, landowners, and biologists involved in southern Idaho ground squirrel conservation. Emmett, ID.
- Garner, A.** 2004. Conservation and consecration. “Our Stewardship” symposium, Brigham Young University, Provo, UT.
- Garner, A.,** and J. L. Rachlow. 2004. Conservation genetics of northern Idaho ground squirrels. Meeting of government agencies involved in species recovery plan, Council, ID.
- Garner, A.,** J. L. Rachlow, and L. P. Waits. 2003. Conservation genetics of northern and southern Idaho ground squirrels. Conservation Genetics Workshop, University of Idaho, Moscow, ID.

Publications:

- Metge, A. G.** 2006. Conservation through consecration. Pp. 109-119 in Stewardship and the creation: LDS perspectives on the environment. Religious Studies Center, Brigham Young University, Provo, Utah.
- Garner, A.,** J.L. Rachlow, and L. W. Waits. 2005. Genetic diversity and population divergence in fragmented habitats: conservation of Idaho ground squirrels. *Conservation Genetics* 6:759-774.
- Garner, A.,** J.L. Rachlow, and J.F. Hicks. 2005. Patterns of genetic diversity and its loss in mammalian populations. *Conservation Biology* 19:1215-1221.
- Garner, A.** 2003. Spirituality and sustainability. *Conservation Biology* 17:946. (Letter to Editor)

Other Professional Writing:

- 2009 Religion and Conservation Biology Working Group of the Society for Conservation Biology. SCB Annual Meeting and Exhibition, Beijing, China:
A Primer on Conservation Biology for People of Faith (with J. Lee and M. Haynes)
The Conservation-Religion Interface: What Every Conservation Biologist Should Know (with J. Lee and M. Haynes)
Buddhism and Conservation Fact Sheet (with L. Lindh)
Christianity and Conservation Fact Sheet (with J. Lee)
Confucianism and Conservation Fact Sheet
Daoism and Conservation Fact Sheet
Hinduism and Conservation Fact Sheet
Islam and Conservation Fact Sheet (with J. Lee)
Judaism and Conservation Fact Sheet

Self-Published and Electronic Media:

- Metge, A. G.** 2013. *Emergence: A Journey of Friendship, Science, and Faith* (a novel about one biologist’s experience with the science-faith interface), available at alissemetge.com
- Metge, A. G.** Sept. 2013-Present. *Faith, Science, Harmony* (blog), faithscienceharmony.blogspot.com

Writing In Process or Not Published:

Metge, A.G. (*submitted*) *Motherhood is a Contact Sport* (a short collection of memorable mothering moments)

Metge, A. G. (*in process*) Natural law and miracles: An LDS perspective on Intelligent Design

Metge, A. G. (*in process*) "That you may be instructed more perfectly in theory": LDS doctrine and science

Baugh, T., S. Bhagwat, M. Haynes, D. Limpert, **A. G. Metge**, K. Sheik. (*submitted and declined, 2010*) Religion and conservation biology: emerging opportunities for cooperation.

Garner, A. (*submitted and declined, 2006*) Communicating for conservation: perspectives on the science-religion dialogue

Garner, A. 2004. Genetic Diversity and Divergence in Fragmented Populations of the Idaho Ground Squirrel (*Spermophilus brunneus brunneus* and *S. b. endemicus*). Masters Thesis, University of Idaho.

Other Accomplishments:

Mother of three

Music composition (play nine instruments)