Curriculum Vitae
L. LaReesa Wolfenbarger

Current position and contact information

Associate Professor
Department of Biology
University of Nebraska at Omaha
6001 Dodge Street
Omaha, NE 68182-0040

Tel. 402/554-2405
Fax. 402/554-3532
lwolfenbarger@unomaha.edu

Professional Recognition

- Fulbright Scholar, 2008-2009
- Committee Member and Lead Chapter Author for the National Research Council, National Academies report on The Impact of Biotechnology on Farm Economics and Sustainability, 2008 – 2010.
- Steering Committee Member for the National Research Council, National Academies Workshop on Research to Improve the Evaluation of the Impacts of Genetically Engineered Organisms on Terrestrial and Aquatic Wildlife and Habitats, 2006-2007.
- Invited speaker on Environmental Impacts and Social Responses to Genetically Engineered Crops as part of a Distinguished Lecturer Series: Food for Thought, Biotechnology Outreach Center, Oregon State University, 2005
- Fellow, Center for Great Plains Studies, 2002 to present
- Invited speaker for the Libra Distinguished Lecture Series on Bioethics, University of Maine – Machias, 2001.
- American Association for the Advancement of Science (AAAS) Science Policy Fellow
- National Science Foundation/A.P. Sloan Foundation Postdoctoral Research Fellow

Education

Ph.D.: Cornell University, Ithaca, NY, August 1996
Dissertation Title: The functional significance of red coloration in male Northern Cardinals (*Cardinalis cardinalis*)
Major advisors: Dr. Stephen T. Emlen and Dr. Paul W. Sherman
Minor committee members: Dr. David Winkler, Dr. Richard Harrison, and Dr. Anne Schneiderman

B.Sc.: December 1987, University of California at Los Angeles
Major: Biology

Professional Affiliations

August. 2001- present: *Associate Professor of Biology , University of Nebraska at Omaha. (2004 – present), Adjunct Professor, College of Natural Resources, University of Nebraska at Lincoln (2004- present), Adjunct Associate Professor of Biology and Prairie Manager (2001 – 2004), University of Nebraska at Omaha.*

- Conduct research on ecological effects of agricultural practices and land management for grassland bird conservation; hindcasting the 40-year effects of corn and soybean agriculture on bird populations in the Great Plains; synthesize science on agricultural biotechnology; advise graduate students; teach undergraduate and graduate level courses; Chair of the

Biology Graduate Program; organize public symposia on environmental issues; manage 160-acre prairie preserve.

August 2008 – June 2009: *Fulbright Research Scholar, Center for Ecological and Evolutionary Synthesis, University of Oslo, Norway.*

- Conducted seminars and research on ecological forecasting; developed collaborations with a multi-national, interdisciplinary group of colleagues synthesized long-term databases on agriculture with Breeding Bird Survey database.

May 2001 – Sept 2003: *Senior Program Associate, Information Systems for Biotechnology, Department of Biochemistry, Virginia Polytechnic Institute and State University.*

- Developed and organized programs that promote communication among scientists, regulators and policymakers on biotechnology; synthesized science on agricultural biotechnology.

January 2001 – June 2001: *Ecologist, U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington, DC.*

- Synthesized science on agricultural biotechnology, invasive species, and general ecology for regulators and policymakers; identified gaps in research and developed research priorities on agricultural biotechnology; developed internal budget initiative for priority areas; aided in development of internal research program in agricultural biotechnology.

September 1999 – January 2001: *Science and Policy Fellow, U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington, DC.*

- Awarded competitive fellowship through the American Association for the Advancement of Science (AAAS); synthesized science on agricultural biotechnology, invasive species, and general ecology for regulators and policymakers; identified gaps in research and developed research priorities on agricultural biotechnology; served as scientific resource to the U.S. State Department during preparations for negotiating the Cartagena agreement (International Biosafety Protocol).

January 1999 – June 2000: *Research Associate and Instructor, Department of Biology, University of Maryland, College Park, MD*

- Completed research on the evolutionary genetics of stalk-eyed flies; responsible for 1/2 of lectures and laboratories for Spring 1999 section of Honors Introductory Biology.

January 1997 – January 1999: *National Science Foundation/A.P. Sloan Foundation Postdoctoral Research Fellow, Department of Biology, University of Maryland, College Park, MD*.

- Conducted and funded collaborative research on the evolutionary genetics of stalk-eyed flies; trained graduate and undergraduate students.

September 1997 – May 1998: *Visiting Postdoctoral Researcher, Department of Biology, University of South Carolina, Columbia, SC.*

- Conducted research on the evolutionary genetics of stalk-eyed flies, in charge of laboratory during the year long sabbatical of lab director (Dr. Tim Mousseau); supervised technicians, graduate and undergraduate students.

Jan – May 1996: *Adjunct Instructor, State University of New York, Brockport, NY. Spring 1996.*

- Responsible for 1/3 of lectures and exams for undergraduate course in Evolution.

September 1989 – July 1996: *Graduate Student and Doctoral Candidate, Field of Neurobiology and Behavior, Cornell University, Ithaca, NY.*

- Conducted and funded independent research on the reproductive ecology of Northern Cardinals; worked as a teaching assistant for courses in Animal Behavior, Evolution, Ornithology and Introductory Biology.

Teaching Experience

Conservation Biology, Spring semesters 2005 – 2008, 2010, 2011

- Course for undergraduate and graduate students; conceptual and applied principles of conservation

Introductory Biology Laboratory, Fall 2010

- Course for first semester Biology majors emphasizing general concepts and laboratory skills

Fauna of the Great Plains, Fall 2006, 2007

- Course for undergraduate and graduate students; survey of animal taxa in the Great Plains, their natural history and methods for ecological studies on them.

Science and Environmental Policy, Spring 2004

- Course for graduate students; how science and scientists influence policy; course group project synthesizing science related to current environmental issue.

Advanced Readings in Biology, Spring 2003, 2004, 2010

- Course for entry-level graduate students; weekly readings and discussions focus on development of critical thinking and hypothesis testing for thesis projects.

Honors Introductory Biology, Co-Instructor (with Dr. G. S. Wilkinson). Spring 1999

- Responsible for 1/3 of lectures, laboratory, exams and grading. Supervised teaching assistants.

Evolution, Adjunct Instructor (with Dr. D. Smith), SUNY, Brockport, Spring 1996

- Responsible for 1/3 of lectures and exams.

Publications

31. Grumet, R. and L. L. Wolfenbarger. 2011. Future possible crops and traits and potential concerns. In *Environmental Safety of Genetically Engineered Crops*, edited by R. Grumet, J. F. Hancock, and K. M. Maredia. East Lansing: Michigan State University Press.
30. Wolfenbarger, L. L., M. D. K. Owen, and Y. Carrière. 2010. Environmental opportunities and challenges of genetically-engineered crops. Choices. 25(2). Online access: http://www.choicesmagazine.org/magazine/block.php?block=48.
29. Klug, P., L. L. Wolfenbarger, and J. P. McCarty. 2010. Snakes are important nest predators of Dickcissels in an agricultural landscape. *The Wilson Journal of Ornithology* 122: 799-803.
28. National Research Council. 2010. *The Impact of Biotechnology on Farm Economics and Sustainability.* Washington, DC: The National Academies Press, with 7 other authors.
27. McCarty, J. P., J. G. Jorgensen, and L. L. Wolfenbarger. 2009. Behavior of Buff-breasted Sandpipers (*Tryngites subruficollis*) during migratory stopover in agricultural fields. *PLoS ONE 4(11)*: e8000. doi:10.1371/journal.pone.0008000.
26. Jorgensen, J.G., J. P. McCarty, and L. L. Wolfenbarger. 2009. Killdeer *Charadrius vociferous* breeding abundance and habitat use in the Eastern Rainwater Basin, Nebraska. *International Wader Study Group Bulletin* 116:65-68.

25. Klug, P., L. L. Wolfenbarger, and J. P. McCarty. 2009. The nest predator community of grassland birds responds to agroecosystem habitat at multiple scales. *Ecography.* 32: 973-982 [doi:10.1111/j.0906-7590.2009.05857.x].
24. McCarty, J. P., L. L. Wolfenbarger, and J. A. Wilson. 2009. Biological Impacts of Climate Change. *In* Encyclopedia of Life Sciences. John Wiley & Sons, Ltd: Chichester http://www.els.net/ [doi:10.1002/9780470015902.a0020480]
23. Marvier, M. , Y. Carriere, N. Ellstrand, P. Gepts, P. Kareiva, E. Rosi-Marshall, B.E. Tabashnik, L.L. Wolfenbarger 2008. Ecology – Harvesting data from genetically engineered crops. *Science* 320: 452-453.
22. Wolfenbarger, L. L., S. E. Naranjo, J.G. Lundgren, R.J. Bitzer, and L.S. Watrud. 2008. Bt crop effects on functional guilds of non-target arthropods: a meta-analysis. *Public Library of Science (PLoS) One* 3(5): e2118. (Citations: 66)
21. Agar, N., D. M. Lodge., G. McKenny and L. L. Wolfenbarger. 2008. Biodiversity and biotechnology. In *Altering Nature, Volume Two: Religion, Biotechnology and Public Policy*, Ed. by A.B. Lustig, B. Brody, and G. McKenny. Dordrecht: Springer.
20. Jorgensen, J.G., J.P. McCarty, and L. L. Wolfenbarger. 2008. Buff-breasted Sandpiper density and numbers during migratory stopover in the Rainwater Basin, Nebraska. *The Condor* 110: 63-69.
19. Jorgensen, J.G., J.P. McCarty, and L. L. Wolfenbarger. 2007. Landscape and habitat variables affecting Buff-breasted Sandpiper, *Tryngites subruficollis,* distribution during migratory stopover in the Rainwater Basin, Nebraska. *International Wader Study Group Bulletin* 112: 45-51.
18. Berkeley, L.I., J.P. McCarty, and L. L. Wolfenbarger. 2007. Postfledging survival and movement in dickcissels (*Spiza americana*): implications for habitat management and conservation. *Auk* 124: 396-409. (Citations: 36)
17. Jorgensen, J. G., J. P. McCarty, L. L. Wolfenbarger, M. Ealy, and B. Ortego. 2006. Buff-breasted Sandpiper abundance, distribution, and habitat use during migration in the Rainwater Basin, Nebraska (and Texas). [Published Abstract]. *Wader Study Group Bulletin* 109:21.
16. Johns, P. M., L.L. Wolfenbarger, and G.S. Wilkinson. 2005. Genetic linkage between a sexually selected trait and X chromosome meiotic drive. *Proceedings of the Royal Society of London* B 272: 2097-2103.
15. Snow, A. A., Andow, D. A., Gepts, P., Hallerman, E. M., Power, A., Tiedje, J. M., and Wolfenbarger, L. L. 2005. Genetically engineered organisms and the environment: current status and recommendations. *Ecological Applications* 15:377-404. (Citations: 146)
14. Wolfenbarger, L. L. 2004. Genetically engineered organisms: impacts on and consequences for the environment. *Frontiers in Ecology and Evolution* 2: 154-155.
13. Wolfenbarger, L. L. 2003. Book review: The Nature of Nebraska, by Paul Johnsgard. *Great Plains Research* 13: 352.
12. Wolfenbarger, L. L. and P. R. Phifer. 2003. Biosafety science: overview of plant risk issues. In *Encyclopedia of Plant and Crop Sciences*. Robert M. Goodman, ed. Marcel Dekker, Inc.: New York.
11. Wolfenbarger, L. L. 2002. *Proceedings to a Workshop on Criteria for Field Testing Plants with Engineered Regulatory, Signaling and Metabolic Pathways*. Information Systems for Biotechnology, Virginia Polytechnic Institute and State University: Blacksburg, VA.

10. Wolfenbarger, L. L. 2002. Book review: Genetically Engineered Organisms: Assessing Environmental and Human Health Effects, edited by Deborah K. Letourneau and Beth Elpern Burrows. *American Journal of Alternative Agriculture* 17: 203-204.
9. Wolfenbarger, L. L. and Phifer, P.R. 2001. Replies to Letters to the Editor. *Science*. 292:637-638.
8. Wolfenbarger, L. L. and Wilkinson, G. S. 2001. Sex-linked expression of a sexually selected trait in the stalk-eyed fly, *Cyrtodiopsis dalmanni*. *Evolution* 55:103-110. (Citations: 26)
7. Wolfenbarger, L. L. and Phifer, P. R. 2000. The ecological risks and benefits of genetically engineered plants. *Science* 290: 2088-2093. (Citations: 451)
6. Wolfenbarger, L. L. 1999. Red coloration of male Northern Cardinals correlates with mate quality and territory quality. *Behavioral Ecology* 10:80-90. (Citations: 56)
5. Mueller, U. G. and L. L. Wolfenbarger. 1999. Amplified Fragment Length Polymorphism (AFLP) genotyping and fingerprinting. *Trends in Ecology and Evolution* 14: 389-394. (Citations: 596)
4. Wolfenbarger, L. L. 1999. Female mate choice in Northern Cardinals (*Cardinalis cardinalis*): is there a preference for redder males? *Wilson Bulletin* 111: 76-83.
3. Wolfenbarger, L. L. 1999. Is red coloration of male Northern Cardinals (*Cardinalis cardinalis*) beneficial during the non-breeding season: a test of status signaling. *The Condor* 101: 655-663. (Citations: 20)
2. Sherman, P. W. and Wolfenbarger, L. L. 1995. Reply from P. W. Sherman and L. L. Wolfenbarger. *Trends in Ecology and Evolution* 10: 489.
1. Sherman, P. W. and Wolfenbarger, L. L. 1995. Genetic correlations as tests for sensory exploitation? *Trends in Ecology and Evolution* 10: 246.

Publications in review

Wolfenbarger, L.L., J.P. McCarty, T. Ben Ari, F.K. Diekert, D.O. Hessen, E. Knudsen, E. Machu, A. Nilsson, B. Star, L.A. Vøllestad, and N.C. Stenseth. Making what we know more useful: ecological forecasting as a framework for connecting science to policy. *Frontiers in Ecology and the Environment.*

Policy and Outreach

Committee Member and Lead Author for Environmental Sustainability Chapter, The Impact of Biotechnology on Farm Economics and Sustainability. National Research Council, National Academies, September 2008 – May 2010. Report published by The National Academies in April 2010.

Steering Committee Member, A Workshop on Research to Improve the Evaluation of the Impacts of Genetically Engineered Organisms on Terrestrial and Aquatic Wildlife and Habitats, National Research Council, National Academies, April – December 2007.

Invited Participant, EPA Risk Analysis Working Group, National Center of Ecological Analysis and Synthesis, Santa Barbara, CA. January 2007.

Author (with J. Poland), Developing Countries Crop Primer, prepared for the Bill and Melinda Gates Foundation. Technical summary of agronomy, nutrition and research investment for 20 crops of importance in Sub-Saharan Africa and South Asia. November 2006

Invited speaker at U.S. Environmental Protection Agency conference on Strategic Monitoring for Ecological Impacts from Crops with Plant Incorporated Protectants, August 2004.

Co-author (with A. A. Snow, D. A. Andow, P. Gepts, E. M. Hallerman, A. Power, J. M. Tiedje) on a position paper for the Ecological Society of America on genetically modified organisms. Published in *Ecological Applications*.

Author (with Dr. Mario Gonzalez) Chapter 5, Assessment of effects on natural ecosystems, and Resource Person for Chapter 2. Identification of potential benefits and risks. Article 13 Report Transgenic Maize in Mexico. Commission on Economic Cooperation, North American Agreement on Environmental Cooperation. August 2003 – May 2004.

Steering Committee Member, Workshop on Future Directions and Research Priorities for the USDA Biotechnology Risk Assessment Research Grants Program (BRARGP), June 9-10, 2003.

Science Working Group Member, Nebraska Partnership for All-Bird Conservation, 2002-present.

Program Co-chair and Organizer, Workshop on Criteria for Field Testing of Plants with Engineered Metabolic and Signaling Pathways, sponsored by Information Systems for Biotechnology, Virginia Polytechnic Institute and State University, and by the Animal Plant Health Inspection Service, U.S. Department of Agriculture, June 3-4, 2002.

Co-organizer for "The Future of the Missouri River: A Public Forum, a symposium where 300 members of the public attended to hear speakers scientific issues concerning the regulation of flow along the Missouri River and to listen to stakeholder views on the science and on interests in the management of the Missouri River. February 2002.

Grants

Wolfenbarger, L. L., McCarty, J.P, and Jorgensen, J. G. Cost effective and statistically sound monitoring of Buff-breasted Sandpipers in the eastern Rainwater Basin. September 2011-April 2014. $54,268.

Wolfenbarger, L. L. Review and synthesis of emerging wind power development and wildlife issues. Nebraska Game and Parks Commission, $15,000, August 2010 – March 2011.

McCarty, J.P., Wolfenbarger, L. L., and Jorgensen, J. G. Stopover ecology of high-priority shorebirds in the Rainwater Basin, Nebraska. Nebraska State Wildlife Grants Program, $31,606, April 2006 – September 2009.

McCarty, J.P. and Wolfenbarger, L. L. Ecology of Urban Canada Geese: Searching for a Solution to Human – Wildlife Conflicts. $8,402 from NSF STEP Early Undergraduate Research Support Grant to UNO. 2008.

McCarty, J. P. and Wolfenbarger, L. L. Renewal of Cooperative Agreement with the US Fish and Wildlife Service for grassland bird research and Challenge Grant for research on visitor impacts on wildlife. $4,600, 2006.

McCarty, J. P. and Wolfenbarger, L. L. Grassland bird conservation in agricultural landscapes: are working lands and conservation lands synergistic? University of Nebraska—Nebraska Research Initiative, $132,684, July 2004 – June 2006.

McCarty, J. P. and Wolfenbarger, L. L. Renewal of Cooperative Agreement with the US Fish and Wildlife Service for grassland bird research and Challenge Grant for research on visitor impacts on wildlife, $4,560, 2005.

McCarty, J. P. and Wolfenbarger L. L. Non-game bird surveys: UNO/NGPC Inventory and Monitoring Partnership. Nebraska Game and Parks Commission, $27,654, 2004.

McCarty, J. P. and Wolfenbarger L. L. Renewal of Cooperative Agreement with the US Fish and Wildlife Service for grassland bird research and Challenge Grant for research on nest predators and grassland bird fledgling ecology. $17,200, 2004.

McCarty, J. P., Wolfenbarger, L. L. and Jorgensen, J. The stopover ecology of the Buff-breasted sandpiper in the Rainwater Basin: a flagship species for shorebird conservation in Nebraska, Nebraska State Wildlife Grants Program, $12,750. March 2004 – May 2006

McCarty, J.P. and Wolfenbarger, L. L. U.S. Fish and Wildlife Service Challenge Grant Between USFWS Boyer Chute NWR and UNO: Postfledging Ecology of Dickcissels, $7,560, 2003.

Wolfenbarger, L. L. and McCarty, J. P. Large scale ecological effects of herbicide tolerant crops on avian communities and reproduction. Biotechnology Risk Assessment Research Grants Program, U.S. Department of Agriculture, $270,000, September 2002 – September 2006.

Frederick, R. F., Lorber, M. and Wolfenbarger, L. L. Large scale adoption of genetically modified crops: an integrated assessment of the environmental impact on human and ecological populations. Internal grant from the U.S. Environmental Protection Agency, Office of Research and Development; $135,000, May 2001 (work reassigned when I relocated to Nebraska)

Wolfenbarger, L. L. The genetic basis of sexual dimorphism in a stalk eyed fly (Diptera: Diopsidae): mapping of quantitative trait loci affecting eye span. National Science Foundation/Alfred P. Sloan Foundation, Postdoctoral Research Fellowship in Molecular Evolution, $80,000, July 1996

Wolfenbarger, L. L. Conspicuous coloration in male Northern Cardinals: possible benefits throughout the year. National Science Foundation, Dissertation Improvement Grant, September 1994; American Museum of Natural History, Chapman Fund, May 1994; Sigma Xi, Grant-in-Aid-of-Research, March 1993, 1994; Cornell Laboratory of Ornithology, Walter E. Benning Fund, March 1992; $5,300

Media Contact

More than 40 interviews for national and international radio, newspapers and magazines about the National Research Council report on The Impact of Biotechnology on Farm Economics and Sustainability, April – July 2010.

Speaker at the press release of the National Research Council report on The Impact of Biotechnology on Farm Economics and Sustainability, April 2010.

More than 20 interviews with science journalists for stories in *Science*, *Nature*, *National Geographic* and other publications over the past 10 years.

Interview about Fulbright Fellowship for "Consider This," Aired on Nebraska Public Television, April 2008

Interview for "The DNA Files: Applied Ecology", Aired on National Public Radio, November 2001.

Interview for "Seeds of Contention", Aired on the BBC World Service, March 2001

Interview for "Dressed for success: cardinals maximize fiery feathers," Amherst *Bulletin*, May 18, 2001.

Interview for "Studie om risker tolkas olika," Dagens Nyheter (Swedish daily newspaper), March 10, 2001.

Interview for "Modified-Crop studies called inconclusive," New York *Times*, December 14, 2000; Work also featured in The Week in Review, New York Times, Sunday, December 17,

2000 and the "What's next for biotech crops?: questions," Science Times section, New York *Times*, December 19, 2000.
Interview for "A male cardinal is a good parent," Toledo Blade, March 6, 2000.

Professional Societies

American Association for the Advancement of Science
American Ornithologists' Union
Ecological Society of America
Society for Conservation Biology
Sigma Xi

Professional Service

Treasurer, Nebraska Academy of Science, 2009-present
Reviewer for *Behavioral Ecology*, *Behavioral Ecology and Sociobiology*, *Conservation Biology, Ecological Applications, Ecology Letters*, *Wilson Bulletin*, *The Condor*, *Journal of Fish Biology*, *Chromosoma, Heredity, Trends in Biotechnology*
Grant reviewer for U.S. Environmental Protection Agency, U.S. Department of Agriculture, Biotechnology Risk Assessment Grants, National Science Foundation.
Grant panelist for U.S. Environmental Protection Agency. U.S. Department of Agriculture.

Presentations

59. Wolfenbarger, L. L. Conservation of grassland birds in an agricultural mosaic. Invited seminar at North Central Agricultural Research Lab, USDA Agricultural Research Service, Brookings, SD, October 2010.
58. Wolfenbarger, L. L. Report on the U.S.National Research Council study on The Impact of Biotechnology on Farm Economics and Sustainability in the US. Invited Plenary Speaker, International Consortium on Agricultural Biotechnology Research, Ravello, Italy, June 2010.
57. Wolfenbarger, L. L. Environmental impacts of genetically engineered crops: an example using herbicide tolerant crops. Department of Forestry and Wildlife Management, Hedmark University College, Evenstad, Norway, February 2009
56. Wolfenbarger, L. L. and J. P. McCarty. Conservation, birds, agriculture, and ecological forecasting using lessons from fisheries, forestry, and climate change biology. Department of Zoology, University of Cambridge, January 2009
55. Wolfenbarger, L. L. and J. P. McCarty. Conservation, birds, agriculture, and plans to develop ecological forecasting using lessons from fisheries, forestry, and climate change biology. Invited presentation, Centre for Ecological and Evolutionary Synthesis, University of Oslo, Norway, September 2008.
54. Wolfenbarger, L. L. Research on effects of genetically engineered crops on wildlife and their natural habitats. Invited presentation at "A Workshop on Genetically Engineered Organisms, Wildlife and Habitats" sponsored by the National Research Council. Irvine, CA, November 2007.
53. Reinarz, L.T., C.R. Allen, L. L. Wolfenbarger, C. Helzer, and J.P. McCarty. The relationship between plant diversity and herbivory rates in tallgrass prairies. Poster presentation at Midwest Fish and Wildlife Conference. Omaha, Nebraska, December 2006.

52. Jorgensen, J.G., J.P. McCarty, and L.L. Wolfenbarger. Buff-breasted Sandpiper migration and stopover in the Rainwater Basin, Nebraska. Invited presentation, Rivers and Wildlife Celebration sponsored by Audubon Nebraska, Audubon's Rowe Sanctuary, and the Nebraska Partnership for All-Bird Conservation. Kearney, Nebraska, March 2006.
51. Wolfenbarger, L. L. Effects of agriculture on grassland bird communities and reproduction. Invited presentation, Ecology and Evolution Seminar series of the School of Biological Sciences, University of Nebraska–Lincoln, March 2006.
50. Jorgensen, J.G., J. P. McCarty, L. L. Wolfenbarger, M. Ealy, and B. Ortego, Buff-breasted Sandpiper abundance, distribution, and habitat use during migration in the Rainwater Basin, Nebraska and Texas. Invited presentation at Buff-breasted Sandpiper Symposium at the Shorebird Science meeting in the Western Hemisphere. Boulder, Colorado, February 2006.
49. Wolfenbarger, L. L. Effects of agriculture on grassland bird communities and reproduction. Invited seminar, Department of Fisheries and Wildlife, Oregon State University, December 2005.
48. Wolfenbarger, L. L. Environmental impacts and social responses to genetically engineered crops. Invited public presentation for 2005 Food for Thought Lecture series, Biotechnology Outreach Center, Oregon State University, November 2005.
47. Wolfenbarger, L. L. Ecological impacts of genetically engineered crops: a case study of the Farm Scale Evaluations. Invited Biology 430/530 class lecture. Oregon State University, November 2005.
46. Simmons, K., L.L. Wolfenbarger, J.P. McCarty. Effects of human disturbance on avian abundance and species composition. Poster presentation contributed to 32nd Natural Areas. Lincoln, Nebraska, September 2005. Received Best Student Poster Award.
45. Rider, N.L, L.L. Wolfenbarger, J.P. McCarty. The cumulative effects of using transgenic herbicide-tolerant soybeans on plant and butterfly diversity in marginal field habitat. Contributed oral presentation to 32nd Natural Areas, September 2005. Lincoln, Nebraska.
44. Jorgensen, J.G., J.P. McCarty, and L.L. Wolfenbarger. Buff-breasted Sandpiper (*Tryngites subruficollis*) stopover in the Rainwater Basin. Contributed oral presentation to 32nd Natural Areas Lincoln, Nebraska, September 2005. Received Best Student Paper Award
43. Klug, P.E., L. L. Wolfenbarger, J.P. McCarty. Predator communities in agroecosystems and the impacts on avian nesting. Contributed oral presentation to 32nd Natural Areas Lincoln, Nebraska, September 2005.
42. Jorgensen, J.G., J.P. McCarty, and L.L. Wolfenbarger. Migration, stopover, survival, conservation: the case of the Buff-breasted Sandpiper and the Rainwater Basin. Nebraska Ornithologists' Union Fall Meeting. Alma, Nebraska, September 2005.
41. Jorgensen, J.G., J.P. McCarty, and L.L. Wolfenbarger. A spatial model for Buff-breasted Sandpipers during migration in an agricultural landscape. American Ornithologists' Union 123rd Annual Meeting. Santa Barbara, California, August 2005.
40. Habitat, predation and nesting success in the Dickcissel (*Spiza americana*). Invited departmental seminar, Department of Fisheries and Wildlife, University of Missouri-Columbia, October 2004.
39. Ecological impacts of genetically engineered organisms: science for policy and regulation. Invited departmental seminar, Conservation Biology Program, University of Missouri-Columbia, October 2004.
38. Ecosystem monitoring and trophic levels: incorporating ecological interactions into monitoring. Invited presentation at Symposium on Strategic Monitoring for Ecological

Impacts from Crops with Plant Incorporated Protectants, U.S. Environmental Protection Agency, Washington, DC, August 2004.

37. Klug, P. E., L. L. Wolfenbarger, and J. P. McCarty. The effects of grassland patch and landscape characteristics on the nest predator community of grassland bird nests. Contributed oral presentation to the annual meeting of the Ecological Society of America. Portland, OR, August 2004.
36. Berkeley, L.I., J.P. McCarty, and L. L. Wolfenbarger. The importance of the postfledging period to the conservation of Dickcissels. Contributed oral presentation to the annual meeting of the Ecological Society of America. Portland, OR, August 2004.
35. The role of conservation science in assessing non-target effects of transgenic crops on communities and ecosystems. Invited presentation at symposium on Biotechnology and Biodiversity: Understanding the Potential Conservation Risks and Benefits of Genetic Engineering at the 18th Annual Meeting of the Society for Conservation Biology. (co-authored with J. P. McCarty, P. E. Klug, and L. I. Berkeley), July 2004.
34. Klug, P. E., L. L. Wolfenbarger, and J. P. McCarty. The effects of grassland patch and landscape characteristics on the nest predator community of grassland bird nests. Contributed oral presentation to the annual meeting of the Cooper Ornithological Society. LaCrosse, WI, May 2004. Won Best Student Paper Award.
33. Berkeley, L.I., J.P. McCarty, and L. L. Wolfenbarger The importance of the postfledging period to the conservation of Dickcissels. Contributed oral paper to the annual meeting of the Cooper Ornithological Society. LaCrosse, WI, May 2004.
32. Ecological effects of transgenic organisms in a regulatory context: a role for post-commercialization monitoring, Invited speaker, Biological Invasions symposium, Program in Ecology and Evolution, University of California, Davis, April 2004
31. Assessment on natural ecosystems. Invited presentation at Maize and Biodiversity Symposium: The Effects of Transgenic Maize in Mexico, Commission on Environment Cooperation, Oaxaca, Mexico. March 2004
30. Goals and mandates for biotechnology research conducted under experimental use permits, Invited speaker and panelist, Public meeting on Plant-Incorporated Protectant Experimental Use Permit: Process and Compliance, Office of Pesticide Programs, U.S. Environmental Protection Agency, Washington, DC, February 2004
29. Ecological effects of large-scale adoption of transgenic crops. Invited presentation at symposium on Contributions of Field Studies towards Biotechnology Assessments organized by the Office of Research and Development, USEPA (co-authored with J. P. McCarty). February 2004.
28. Engberg, S., J. P. McCarty, and L. L. Wolfenbarger. Area and Landscape Sensitivity of Grassland Birds to Breeding Habitat Fragmentation in the Missouri River Valley. 64th Midwest Fish and Wildlife Conference. December 2003.
27. Large scale ecological effects of herbicide tolerant crops on avian communities and reproduction. Invited seminar at Department of Ecology, Evolution and Organismal Biology, Ohio State University, October 2003.
26. Ecological effects of herbicide-tolerant crops on avian communities and reproduction in the Midwestern agricultural landscape: a framework for post-commercialization testing and monitoring. Poster presented at the American Ornithologists' Union 123rd annual meeting. August 2003. (co-authored with P. E. Klug, L. I. Berkeley and J. P. McCarty)

25. J. P. McCarty, M. F. Ortega and L. L. Wolfenbarger. Dickcissel nest habitat: selectivity and consequences for reproductive success. Poster presented at the American Ornithologists' Union 123rd annual meeting. August 2003.
24. Ecological effects of herbicide-tolerant crops on avian communities and reproduction in the Midwestern agricultural landscape: a framework for post-commercialization testing and monitoring. Invited poster at Stakeholder Workshop on "Future Directions & Research Priorities for the USDA Biotechnology Risk Assessment Research Grants Program," sponsored by USDA, US EPA, and Information Systems for Biotechnology at Virginia Tech. June 2003. (co-authored with P. E. Klug, L. I. Berkeley and J. P. McCarty)
23. Science policy and ecological monitoring of transgenic crops after commercialization: herbicide tolerant soybeans and avian communities. Department of Fisheries, Wildlife, and Conservation Biology, University of Minnesota. March 2003.
22. Environmental risks of genetically modified crops: science and society. Invited seminar to Environmental Sciences, Creighton University. February 2003.
21. An update on genetically modified crops: environmental and human health consequences. Invited presentation at the Global Environmental Change: The Science and Human Health Impacts course for Senior Congressional Staff organized by the Center for Health and the Global Environment, Harvard Medical School. March 2002.
20. Balancing the risks and benefits of genetically engineered organisms: an integration of science and values. Invited speaker for the Libra Distinguished Lecture Series on Bioethics, University of Maine – Machias. November 2001
19. The genetic basis of a sexually selected trait in the stalk-eyed fly, *Cyrtodiopsis dalmanni*. Invited seminar at Department of Biology, University of Nebraska at Omaha. September 2001.
18. The functional significance of red coloration in male Northern Cardinals. Invited seminar at Smithsonian Environmental Research Center. Edgewater, Maryland. June 2001.
17. Panel discussant at the Workshop on Opportunities in Agriculture. National Research Council, National Academies of Sciences. Washington, DC. June 2001.
16. Environmental risks and benefits of genetically modified plants. Invited presentation at Global Environmental Change: The Science and Human Health Impacts course for Senior Congressional Staff organized by the Center for Health and the Global Environment, Harvard Medical School. May 2001.
15. Environmental risks and benefits of genetically modified plants. University of Guelph. Invited presentation at GMOs: Genes Made to Order, annual symposium of the Toxicology Students Association. March 2001
14. Environmental risks and benefits of genetically modified plants. Invited presentation at Annual Controversial Issues: A Public Forum on Plant Biotechnology and GMOs. University of New Hampshire. March 2001
13. Environmental risks and benefits of genetically modified plants. Invited presentation at the Science and Public Policy symposium. Annual meeting of the American Physical Society. Seattle, Washington. March 2001
12. Ecological effects of genetically engineered organisms and the challenges for assessing risks. Invited seminar at the Biology Department, Hood College, Frederick, Maryland. December 2000

11. The ecological risks of genetically modified organisms and the challenges for risk assessment. Invited presentation at the Workshop on Environmental Contamination, Biotechnology and the Law. National Research Council, National Academies of Sciences. Washington, DC. August 2000.
10. The ecological risks of genetically modified organisms and the challenges for risk assessment. Invited presentation at the U. S. EPA Regional Risk Assessors' Meeting. Snowmass, CO. June 2000.
9. Quantitative trait loci for the sexually selected trait, eyespan, in a stalk-eyed fly. Contributed paper presented at the annual meeting for the Society for the Study of Evolution. Madison, WI. July 1999
8. X chromosome influences the sexually selected trait eyespan in the stalk-eyed fly, *Cyrtodiopsis dalmanni*. Contributed paper presented at the annual meeting for the Society for the Study of Evolution. Vancouver, BC. July 1998
7. The functional significance of red coloration of male Northern Cardinals. Invited seminar at the Department of Biological Sciences. Auburn University, Auburn, AL. May 1998.
6. The functional significance of red coloration of male Northern Cardinals. Invited seminar at the Department of Zoology, University of Florida, Gainesville, FL. November 1997
5. The functional significance of red coloration of male Northern Cardinals. Invited seminar at Department of Biology, Lewis and Clark College, Portland, OR. March 1997.
4. The functional significance of red coloration of male Northern Cardinals. Invited seminar at Department of Zoological Research, Smithsonian Institution, Washington, DC. March 1997.
3. The functional significance of red coloration of male Northern Cardinals. Dissertation seminar for the Field of Neurobiology and Behavior, Cornell University, Ithaca, NY. July 1996.
2. Do male cardinals obtain benefits from having bright coloration? Contributed paper presented at the 32nd annual meeting of the Animal Behavior Society. Lincoln, NE. July 1995.
1. Why are male cardinals red? Benefits of bright coloration for male Northern Cardinals. Contributed paper presented at the 31st annual meeting of the Animal Behavior Society. Seattle, WA. July 1994.

Additional Training

Wildland Firefighting: Qualified to assist in prescribed burns and wildfire suppression on federal and private lands; successfully completed S-130 Basic Firefighting and S-190 Introduction to Wildland Fire Behavior, March 2002.

GIS: Successfully completed two courses on geographic information systems offered by Environmental Systems Research Institute, Inc. ESRI. Introduction to ArcGIS I and II, February 2001

OTS: Graduate, Organization for Tropical Studies Field Course in Tropical Biology – Summer 1990. Studied the natural history and ecology of a variety of tropical habitats in Costa Rica during an intensive 8-week field course.