

CURRICULUM VITAE

Karin S. Pfennig

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EDUCATION & TRAINING

- 2002-04 Seeding Postdoctoral Innovators in Research & Education (SPIRE) Fellow in Bioinformatics, University of North Carolina, Chapel Hill / Duke University
- 2000-02 National Science Foundation (NSF) Postdoctoral Fellow in Biological Informatics, University of Texas at Austin
- 1999-00 NSF-North Atlantic Treaty Organization (NATO) Postdoctoral Fellow, University of Bristol, U. K.
- 1999 University of Illinois, Urbana-Champaign; Ph.D. in Biology
- 1990 University of California, San Diego; B.A. in Ecology, Behavior & Evolution

PROFESSIONAL POSITIONS

- 2013-present Associate Chair for Academic Affairs, Department of Biology, University of North Carolina, Chapel Hill
- 2010-present Associate Professor, Department of Biology, University of North Carolina, Chapel Hill
- 2004-10 Assistant Professor, Department of Biology, University of North Carolina, Chapel Hill

HONORS AND DISTINCTIONS

- 2016-17 Academic Leadership Program Fellow, Institute for the Arts and Humanities, University of North Carolina, Chapel Hill
- 2008 National Institutes of Health (NIH) Director's New Innovator Award
(created in 2007 to "support a small number of early stage investigators of exceptional creativity who propose bold and highly innovative new research approaches that have the potential to produce a major impact on broad, important problems in biomedical and behavioral research")
- 2002 SPIRE Fellowship (funded by National Human Genome Research Institute)
- 2000 NSF Postdoctoral Fellowship in Biological Informatics
- 1999 NSF-NATO Postdoctoral Fellowship in Science and Engineering

1993-96 List of Teachers Ranked as Excellent by Their Students, U. of Illinois
(on the list for each of the five semesters that I engaged in teaching)

PUBLICATIONS

All are peer-reviewed; * denotes undergraduate co-author; ♦ denotes graduate student co-author; ♦♦ denotes postdoctoral scholar

Book (peer reviewed)

Pfennig, D. W. and K. S. Pfennig. 2012. *Evolution's Wedge: Competition and the Origins of Diversity*. University of California Press, Berkeley, CA.

Book Chapter (peer reviewed)

Pfennig, K. S. and M. J. Ryan. 2010. Evolutionary diversification of mating behaviour: using artificial neural networks to study reproductive character displacement and speciation. Pages 187-214 in *Modeling Perception with Artificial Neural Networks*, C. Tosh and G. Ruxton, eds. Cambridge University Press, Cambridge, UK.

Refereed Journal Articles

Pfennig, K. S. 2016. Reinforcement as an initiator of population divergence and speciation. *Current Zoology* 62: 145–154.

(Invited contribution to special column on “Cascade Reinforcement”)

Schmidt, E. M. ♦ and K. S. Pfennig. 2016. Hybrid female mate choice as a species isolating mechanism: environment matters. *Journal of Evolutionary Biology* 29: 865-869.

Garcia, N. W. ♦, K. S. Pfennig¹, Sabrina S. Burmeister¹. 2015. Leptin manipulation reduces appetite and causes a switch in mating preference in the Plains spadefoot toad (*Spea bombifrons*). *PLoS ONE* 10(4): e0125981. doi: 10.1371/journal.pone.0125981. ¹These authors contributed equally to the work.

Pfennig, K. S., D. W. Pfennig, C. Porter ♦ and R. A. Martin. 2015. Sexual selection's impacts on ecological specialisation: an experimental test. *Proceedings of the Royal Society B - Biological Sciences* 282: 20150217. doi: 10.1098/rspb.2015.0217.

Pfennig, K. S. and A. M. Rice ♦. 2014. Reinforcement generates reproductive isolation between neighbouring conspecific populations of spadefoot toads. *Proceedings of the Royal Society B - Biological Sciences* 281: 20140949.

(Featured as cover article for the journal)

Dhole, S. ♦ and K. S. Pfennig. 2014. Age-dependent male mating investment in *Drosophila pseudoobscura*. *PLoS ONE* 9(2): e88700. doi:10.1371/journal.pone.0088700

¹Abbott, R., D. Albach, S. Ansell, J. W. Arntzen, S. J. E. Baird, N. Bierne, J. Boughman, A. Brelsford, C. A. Buerkle, R. Buggs, R. K. Butlin, U. Dieckmann, F. Eroukhmanoff, A. Grill, S. H. Cahan, J. S. Hermansen, G. Hewitt, A. G. Hudson, C. Jiggins, J. Jones, B.

- Keller, T. Marczewski, J. Mallet, P. Martinez-Rodriguez, M. Möst, S. Mullen, R. Nichols, A. W. Nolte, C. Parisod, K. S. Pfennig, A. M. Rice, M. G. Ritchie, B. Seifert, C. M. Smadja, R. Stelkens, J. M. Szymura, R. Vinöl, J. B. W. Wolf and D. Zinner. 2013. Hybridization and speciation. *Journal of Evolutionary Biology* 26: 229-246. ¹Order of authorship is alphabetical.
- (Product of the European Science Foundation network 'Frontiers in Speciation Research' workshop "Hybridization in Speciation" for which I was an invited discussion leader)
- Pfennig, K. S., V. G. Rodriguez Moncalvo* and S. S. Burmeister. 2013. Diet alters species recognition in juvenile toads. *Biology Letters* 9: 20130599; doi: 10.1098/rsbl.2013.0599
- Rodriguez Moncalvo, V. G.*, S. S. Burmeister and K. S. Pfennig. 2013. Social signals increase monoamine levels in the tegmentum of juvenile Mexican spadefoot toads (*Spea multiplicata*). *Journal of Comparative Physiology - A* 199: 681-691.
- Wünsch, L. K.♦ and K. S. Pfennig. 2013. Failed sperm development as a reproductive isolating barrier between species. *Evolution and Development* 15: 458-465.
- (Featured in posting ("Wat is de Regel van Haldane ook alweer?") on Scienities.nl, a popular science website in the Netherlands and Belgium, December 2014)
- Bazazi, S.♦, K. S. Pfennig, N. O. Handegard and I. D. Couzin. 2012. Vortex formation and foraging in polyphenic spadefoot toad tadpoles. *Behavioral Ecology and Sociobiology* 66: 879-889.
- Chunco, A. J.♦, T. Jobe* and K. S. Pfennig. 2012. Why do species co-occur? A test of alternative hypotheses describing abiotic differences in sympatry versus allopatry using spadefoot toads. *PLoS ONE* 7(3): e32748. doi:10.1371/journal.pone.0032748.
- Leichty, A. R.♦, D. W. Pfennig, C. D. Jones and K. S. Pfennig. 2012. Relaxed genetic constraint is ancestral to the evolution of phenotypic plasticity. *Integrative and Comparative Biology* 52: 16-30.
- (Invited peer-reviewed contribution to special society-wide symposium "The Impacts of Developmental Plasticity on Evolutionary Innovation and Diversification")
- Pfennig, D. W. and K. S. Pfennig. 2012. Development and evolution of character displacement. *The Year in Evolutionary Biology-2011: Annals of the N.Y. Academy of Sciences* 1256: 89-107.
- (Invited peer-reviewed contribution to annual volume)
- Pfennig, K. S., A. Allenby, R. A. Martin♦, A. Monroy* and C. D. Jones. 2012. A suite of molecular markers for identifying species, detecting introgression and describing population structure in spadefoot toads (*Spea* spp.). *Molecular Ecology Resources* 12: 909-917.
- Pfennig, K. S. and A. H. Hurlbert. 2012. Heterospecific interactions and the proliferation of sexually dimorphic traits. *Current Zoology* 58: 453-462.
- (Invited peer-reviewed contribution to special column on "Sexual selection and speciation")
- Pfennig, K. S. and A. B. Stewart*. 2011. Asymmetric reproductive character displacement in male aggregation behavior. *Proceedings of the Royal Society B - Biological Sciences* 278: 2348-2354.

Pfennig, D. W. and K. S. Pfennig. 2010. Character displacement and the origins of diversity. *American Naturalist* 176: S26-S44.

(Invited peer-reviewed contribution to special theme issue "Darwinian Thinking: 150 years after the "Origin"")

Pfennig, K. S. and D. W. Pfennig. 2009. Character displacement: ecological and reproductive responses to a common evolutionary problem. *The Quarterly Review of Biology* 84: 253-276.

Pfennig, K. S. 2008. Population differences in condition-dependent sexual selection may promote divergence in non-sexual traits. *Evolutionary Ecology Research* 10: 763-773.

Rice, A. M.♦, D. E. Pearse♦, T. Becker♦, R. A. Newman, C. Lebonville*, G. R. Harper♦ and K. S. Pfennig. 2008. Development and characterization of nine polymorphic microsatellite markers for Mexican spadefoot toads (*Spea multiplicata*) with cross-amplification in Plains spadefoot toads (*S. bombifrons*). *Molecular Ecology Resources* 8: 1386-1389.

Pfennig, K. S. 2007. Facultative mate choice drives adaptive hybridization. *Science* 318: 965-967.

(Highlighted in article by Moises Velasquez-Manoff in *The New York Times Magazine* ("Should You Fear the Pizzly Bear?"), August 2014)

(Featured in article by David Robson in *New Scientist* ("Dangerous Liaisons"), December 2012)

(Subject of a Research Focus article by Dr. H. U. Reyer in *Trends in Ecology and Evolution* 23: 289-292 ("Mating with the wrong species can be right"))

(Faculty of 1000 "Must Read" article)

(Featured on AAAS's EurekAlert online news source in their "Especially For Kids" section)

(Subject of article by Heidi Ledford on *Nature News*, *Nature's* online new magazine ("Toads mate across the species divide"), November 2007)

(Subject of article by Susan Milius in *Science News* ("Mr. Not Wrong: Not my species? Not a problem"), November 2007)

(Featured on various international news outlets, podcasts, magazines, and blogs, including *BBC online*, *Bild der Wissenschaft* [a German science magazine], *Conservation Magazine*, *New Scientist Magazine* [both print and online], *Smithsonian Magazine*, *Natural History Magazine* [both print and online], the *Tucson Daily Star*, and "This Week in Evolution")

Pfennig, K. S., A. J. Chunco♦ and A. C. R. Lackey*. 2007. Ecological selection and hybrid fitness: hybrids succeed on parental resources. *Evolutionary Ecology Research* 9: 341-354.

Pfennig, K. S. and M. J. Ryan. 2007. Character displacement and the evolution of mate choice: an artificial neural network approach. *Philosophical Transactions of the Royal Society B - Biological Sciences* 362: 411-419.

(Invited peer-reviewed contribution to special theme issue "The use of neural networks to study perception in animals")

Pfennig, D. W., G. R. Harper♦, Jr., A. F. Brumo*, W. R. Harcombe* and K. S. Pfennig. 2007. Population differences in predation on Batesian mimics in allopatry with their

- model: selection against mimics is strongest when they are common. *Behavioral Ecology and Sociobiology* 61: 505-511.
- Vásquez, T. ♦ and K. S. Pfennig. 2007. Looking on the bright side: females prefer coloration indicative of male size and condition in the sexually dichromatic spadefoot toad, *Scaphiopus couchii*. *Behavioral Ecology and Sociobiology* 62: 127-135.
- (Highlighted in, and “suggested reading” for, web article “It’s not just his croak” by Susan Milius in *Science News* web edition, March 2009)
- Pfennig, K. S. and M. J. Ryan. 2006. Reproductive character displacement generates reproductive isolation among conspecific populations: an artificial neural network study. *Proceedings of the Royal Society B - Biological Sciences* 273: 1361-1368.
- Pfennig, K. S. and D. W. Pfennig. 2005. Character displacement as the “best of a bad situation”: fitness trade-offs resulting from selection to minimize resource and mate competition. *Evolution* 59: 2200-2208.
- Pfennig, K. S. 2003. A test of alternative hypotheses for the evolution of reproductive isolation between spadefoot toads: support for the reinforcement hypothesis. *Evolution* 57: 2842-2851.
- Pfennig, K. S. and M. A. Simovich. 2002. Differential selection to avoid hybridization in two toad species. *Evolution* 56: 1840-1848.
- Pfennig, K. S. and R. C. Tinsley. 2002. Different mate preferences by parasitized and unparasitized females potentially reduces sexual selection. *Journal of Evolutionary Biology* 15: 399-406.
- Pfennig, K. S. 2001. Evolution of pathogen virulence: the role of variation in host phenotype. *Proceedings of the Royal Society of London Series B - Biological Sciences* 268: 755-760.
- Pfennig, D. W., W. R. Harcombe* and K. S. Pfennig. 2001. Frequency-dependent Batesian mimicry. *Nature* 410: 323.
- (Featured in Chapter 4 (“Life Imitates Life”) of the book *Remarkable Creatures: Epic Adventures in the Origin of Species*, by Sean B. Carroll, 2009)
- (Featured in Chapter 1 of a major Biology text to introduce undergraduates to science as a process of discovery and inquiry: *Biology*, 7th edition, by Campbell and Reese, 2004)
- (Subject of an article by J. Whitfield Gibbons in *The 2002 Britannica Book of the Year* (p. 235))
- (Subject of an article in *Natural History* by Richard Milner (“Snake Fakery”, June 2001, p. 18))
- Pfennig, K. S. 2000. Female spadefoot toads compromise on mate quality to ensure conspecific matings. *Behavioral Ecology* 11: 220-227.
- (Subject of radio program “Pulse of the Planet” produced by Jim Metzner and distributed by *Public Radio International*)
- (Featured as cover article for the journal)
- Pfennig, K. S., K. Rapa* and R. McNatt*. 2000. Evolution of male mating behavior: male spadefoot toads preferentially associate with conspecific males. *Behavioral Ecology and Sociobiology* 48: 69-74.
- (Subject of an article by Ruth Bennett in *Science News* (“Single singing male toad seeks same”), June, 2000)

Pfennig, K. S. 1998. The evolution of mate choice and the potential for conflict between species and mate-quality recognition. *Proceedings of the Royal Society of London Series B - Biological Sciences* 265: 1743-1748.

Pfennig, K. S. and J. K. Conner. 1997. Pollen limitation in an experimental population of the wild radish *Raphanus raphanistrum*. *Canadian Journal of Botany* 75: 72-73.

Suarez, A. V., K. S. Pfennig and S. K. Robinson. 1997. Nesting success of a disturbance-dependent songbird on different kinds of edges. *Conservation Biology* 11: 928-935.

RESEARCH SUPPORT

Sole principal investigator on all grants

Major Grants:

- pending* "Behavioral dysfunction and the evolution of reproductive isolation between species", funding recommended by National Science Foundation (*funding recommended*; IOS Behavioral Systems Cluster)
- 2008-13 "The origins and maintenance of context-dependent behavior", funded by the Office of the Director, National Institutes of Health (NIH Director's New Innovator Award; \$2,218,875 total award; 1DP2OD004436-01)
- 2006-09 "Hybridization and its evolutionary consequences" funded by National Science Foundation (\$334,733 total award; DEB 0542566)
- 2005-07 "The role of mate recognition in speciation: a neural network approach", funded by National Science Foundation ("starter" grant; \$50,000; IOB 0455380)

Smaller Grants & Supplements:

- 2008-10 "The origins of condition-dependent behavior", University Research Council Research Award, University of North Carolina (\$4,837)
- 2008 Research Experience for Undergraduates (REU) Supplement funded by National Science Foundation (\$6,000 total award; DEB 0820797)
- 2007 Research Experience for Undergraduates (REU) Supplement funded by National Science Foundation (\$10,700 total award; DEB 0724270)
- 2006 Research Experience for Undergraduates (REU) Supplement funded by National Science Foundation (\$5,334 total award; DEB 0630292)
- 2000 NC State Univ. Summer Institute in Statistical Genetics Scholarship (\$600)
- 1998 Theodore Roosevelt Memorial Fund Grant (\$1,000)
- 1998 Univ. of Illinois Clark Research Support Grant (\$1,000)
- 1997 Sigma Xi Grant-in-Aid of Research (\$700)
- 1997 Southwestern Research Station Student Support Fund Grant (\$700)
- 1996 Animal Behavior Society Research Award (\$800)

- 1996 Univ. of Illinois Clark Research Support Grant (\$1,000)
- 1996 Sigma Xi Grant-in-Aid of Research (\$475)
- 1996 Theodore Roosevelt Memorial Fund Grant (\$900)
- 1996 Univ. Of Illinois Dissertation Research Grant (\$366)
- 1994 Univ. of Illinois Aid in Support of Research Award (\$150)

SCIENTIFIC PRESENTATIONS

Invited Plenary Speaker Presentation

- 2011 Association for the Study of Animal Behaviour International Meeting, London, UK

Invited Symposia Presentations

- 2010 "Diversifying selection: speciation and the evolution of dimorphism"; Society for the Study of Evolution national meeting
- 2006 "Acoustic interactions in animal groups"; Acoustical Society of America national meeting

Invited Workshops

- 2011 "Hybridization in Speciation"; Invited discussion leader; European Science Foundation network 'Frontiers in Speciation Research' workshop, Gregynog, Wales, U.K.
- 2011 "Bringing the Vision Together"; Invited workshop participant; *Eunice Kennedy Shriver* National Institute of Child Health and Human Development; Leesburg, VA.

Invited Seminars

- 2016 Department of Applied Ecology, North Carolina State University (*graduate student invited speaker*)
- 2016 Mountain Lake Biological Station, University of Virginia
- 2015 Ecology, Evolution, and Behavior Department, University of Minnesota
- 2015 Ecology, Evolutionary Biology, and Behavior graduate program, Michigan State University (*graduate student invited speaker*)
- 2015 Kellogg Biological Station, Michigan State University
- 2013 Committee on Evolutionary Biology, EvoMorph seminar; University of Chicago
- 2013 Population Biology, Ecology & Evolution, Emory University (*graduate student invited speaker*)

2013 University Program in Ecology, Duke University (*graduate student invited speaker*)

2013 American Museum of Natural History's Southwestern Research Station

2012 Department of Biological Sciences, Florida State University

2012 American Museum of Natural History's Southwestern Research Station

2011 Biology Department, City College of New York (*graduate student invited speaker*)

2011 Department of Biology, Boston University

2010 Department of Biology, Duke University

2010 Kellogg Biological Station, Michigan State University

2010 School of Biological Sciences, University of Nebraska, Lincoln

2010 Department of Biological Sciences, University of Cincinnati

2008 Department of Biology and Center for the Integrative Study of Animal Behavior (co-sponsors), Indiana University

2008 Department of Ecology & Evolutionary Biology, Princeton University (*"Young Investigator Seminar"*)

2007 Section of Neurobiology & Behavior, Cornell University

2007 Evolutionary Biology & Ecology Research Program, University of Missouri

2007 American Museum of Natural History's Southwestern Research Station

2006 Zoology Department, North Carolina State University

2004 Department of Behavior, Ecology, Evolution and Systematics, University of Maryland (*graduate student invited speaker*)

2004 Program in Ecology, Duke University

2003 Department of Biology, North Carolina Central University

2002 Department of Science, University of North Carolina, Pembroke

2002 Department of Biology, University of North Carolina, Chapel Hill

2002 Department of Biology, Colorado State University

2002 Department of Biology, University of North Carolina, Greensboro

2001 Department of Ecology & Evolution, Rice University

2001 Department of Biology, Southwest Texas State University

2001 Section of Integrative Biology, University of Texas at Austin

2000 Zoology Department, North Carolina State University

1999 School of Biological Sciences, University of Bristol, U.K.

1999 Department of Biology, East Carolina University

1999 American Museum of Natural History's Southwestern Research Station

1998 American Museum of Natural History's Southwestern Research Station

1997 Population Biology Group, Duke University

1996 Section of Neurobiology & Behavior, Cornell University

Professional conference presentations

([■]denotes presentation by K-12 student senior author; *denotes presentation by undergraduate senior author; [◆]denotes presentation by graduate student senior author)

- 2014 Society for the Study of Evolution National Meeting (talk; poster[■])
2013 Animal Behavior Society National Meeting (poster*)
2012 Eighth Annual National Institutes of Health Director's Pioneer Award Symposium (poster)
2012 President's Symposium on Behavioral Plasticity and Evolution, Animal Behavior Society National Meeting (poster[◆])
2012 Society for Integrative and Comparative Biology National Meeting (poster[◆])
2011 Society for Integrative and Comparative Biology National Meeting (two posters[◆])
2011 Association for the Study of Animal Behaviour International Winter Meeting, London, UK (poster[◆])
2010 Sixth Annual National Institutes of Health Director's Pioneer Award Symposium (poster)
2010 Society for the Study of Evolution National Meeting (poster[◆])
2007 Historically Black Colleges and Universities Undergraduate Program National Research Conference (poster*)
2007 International summit, "Evolutionary Change in Human-Altered Environments", Institute of the Environment, University of California, Los Angeles (poster[◆])
2006 Society for the Study of Evolution National Meeting (poster)
2006 Annual Biomedical Research Conference for Minority Students (poster*)
2005 Society for the Study of Evolution National Meeting (poster[◆])
2004 Society for the Study of Evolution National Meeting (talk)
2002 Society for Integrative and Comparative Biology National Meeting (talk)
2001 Society for Integrative and Comparative Biology National Meeting (talk)
2000 Society for Integrative and Comparative Biology National Meeting (talk)
1998 International Society for Behavioral Ecology International Meeting (talk)
1997 Society for the Study of Evolution National Meeting (talk)
1996 Animal Behavior Society National Meeting (poster)

Other Invited Presentations

- 2011 North Carolina Herpetological Meeting, Columbia, NC
2008-09, 2011 Panelist, "Lunch with the Experts" Panel, Graduate Funding 101 Workshop, Graduate Student Professional Development Program, University of North Carolina
1998 Natural history tour of Mason Farm Biological Reserve for University of North Carolina's βββ honor society

PROFESSIONAL SERVICE

Editorial Positions

- 2016-present Editor-Chief, *Oxford Bibliographies in Evolutionary Biology*
- 2012-present Deciding Editor, *Journal of Evolutionary Biology* (European Society for Evolutionary Biology's international journal)
- 2011-present Associate Editor, *Proceedings of the Royal Society B - Biological Sciences* (The Royal Society, London)
- 2014-2016 Advisory Editor, *Oxford Bibliographies in Evolutionary Biology*

Advisory Boards and Review Panels

- 2016-present Member, SPIRE Advisory Committee
- 2013-present Council Member, Society for the Study of Evolution
(*elected by vote of Society members*)
- 2013-2014 Member, National Evolutionary Synthesis Center Advisory Board
- 2007 Panelist, Proposal Review Panel for Animal Behavior, National Science Foundation
- 2004-07 Member, Southwestern Research Station Advisory Committee, American Museum of Natural History
- 2005 Panelist, National Science Foundation Program in Animal Behavior Doctoral Dissertation Improvement Grant Panel

Referee Activities

Journals & Publishers

American Naturalist; Animal Behaviour; Animal Cognition; Annales Zoologici Fennici; Behavioral Ecology; Behavioral Ecology and Sociobiology; Biology Letters; BMC Evolutionary Biology; Cell; Copeia; Current Zoology; Ecology; Ecology Letters; Ethology; Evolution; Evolutionary Ecology; Heredity; Herpetological Journal; Journal of Animal Ecology; Journal of Herpetology; Journal of Evolutionary Biology; Journal of Theoretical Biology; Molecular Ecology; Naturwissenschaften; New Phytologist; Proceedings of the Royal Society B: Biological Sciences; Science; Sinauer Associates, Inc.; Trends in Ecology and Evolution; W.W. Norton & Company; Zoological Science

Funding Organizations

Czech Science Foundation; National Geographic; National Science Foundation; Swedish Research Council (International Reviewer for European Young Investigator Awards)

Other Extramural Service

- 2016 Member, Gould Committee, Society for the Study of Evolution
- 2015, 2016 Member, Stearns Graduate Student Prize Review Committee for the European Society for Evolutionary Biology
- 2014 Chair, "Evolution 2014" Program Committee for the 2014 joint meeting of Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists in Raleigh, NC
- 2013-14 Member, Rosemary Grant Committee, Society for the Study of Evolution

- 2011-14 Member, "Evolution 2014" Organizing Committee; organizing the 2014 joint meeting of Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists in Raleigh, NC
- 2008 Abstract reviewer, International Society for Behavioral Ecology's international meeting at Cornell University
- 2001-02 Member, Judging Committee, Student Paper and Poster Awards, Division of Animal Behavior, Society for Integrative and Comparative Biology National Meetings
- 2000 Sigma Xi Grant-in-Aid of Research guest reviewer

Intramural Service (in UNC Biology unless otherwise noted)

- 2016 Summer Undergraduate Research Fellowship (SURF) Natural Sciences Selection Committee, Office for Undergraduate Research
- 2014-present Member, UNC Division of Laboratory Animal Medicine (DLAM) Advisory Committee
- 2014-present Member, Chairman's Advisory Committee
- 2014-present Member, Development Committee
- 2013-present Associate Chair for Academic Affairs
- 2013-present Member (ex officio), Undergraduate Studies Committee
- 2013-2015 Member, EEOB Graduate Studies and Admissions
- 2015 Member, Graduate Student Services Search Committee
- 2014 Chair, Teaching Load Working Group
- 2014 Member, SPIRE Fellowship Application Review Committee, SPIRE Postdoctoral Fellowship Program, UNC Graduate College
- 2013-2014 Chair, Faculty Search Committee for Evolutionary Biology
- 2012-2013 Chair, EEOB Graduate Studies and Admissions Committee
- 2012-2013 Chair, Faculty Search Committee for Evolutionary Biology
- 2012-2013 Member, Biology Space Committee
- 2012-2013 Member, Biology Web Site Committee
- 2012 Member, Graduate Student Services Search Committee
- 2011-2012 Member, Faculty Search Committee for Metagenomics
- 2010 Member, Bachelor of Science Curriculum Evaluation Committee, Curriculum for the Environment and Ecology, Univ. of North Carolina
- 2008-2012 Chair, EEOB Graduate Admissions/Awards Committee
- 2008-2012 Liaison, Graduate Programs Committee
- 2007-08 Member, Graduate Admissions Committee
- 2007-08 Member, Faculty Search Committee for Ecologist
- 2005-2009 Member, Library Committee
- 2004-08 Member, Graduate Admissions Committee, Ecology Curriculum, Univ. of North Carolina
- 2004-08 Member, Undergraduate Studies Committee
- 2005-08 Instigated and organized bi-weekly Evolution, Ecology, and Organismal Biology (EEOB) Seminar Series
- 2004-07 Member, Advising Committee
- 2005 Faculty Secretary
- 2004-05 Member, Graduate Admissions Committee
- 1999-00 Mason Farm Biological Reserve Committee, Univ. North Carolina

TEACHING & MENTORING

Courses Taught

University of North Carolina

- Biol 469 Behavioral Ecology. Alternate Springs, 2007-2013; Alternate Falls 2013-present.
- Biol/Ecol 602 Professional Development Skills for Ecologists and Biologists. Alternate Falls, 2007-present (excluding Fall, 2013)
- Biol 201 Ecology and Population Biology. Alternate Falls, 2004-2012.
- Biol 669 Graduate Seminars:
"Readings in Behavioral Ecology" 2015
"Next Generation Sequencing Techniques in Ecology & Evolution" 2013 (co-taught with Dr. Chris Willett)
"Does Ecology Need Evolution?" 2012 (co-taught with Dr. John Bruno)
"Character Displacement and the Origins of Diversity" 2010 (co-taught with Dr. David Pfennig)
"Frontiers in Behavioral Ecology" 2008
"Professional Development Skills" 2006

North Carolina Central University

- Biol 4200 Introduction to Biostatistics. 2004

American Museum of Natural History's Southwestern Research Station

Guest instructor, Field Herpetology of the Southwest, Summers, 2011-present

Postdoctoral Scholars Advised

- 2015-present Dr. Spencer Ingley, NSF Postdoctoral Fellowship recipient
- 2015-present Dr. Amanda Pierce, SPIRE Fellowship recipient
- 2011 Dr. Amber Rice (currently Assistant Professor, Lehigh University)
- 2010-2011 Dr. Verónica Rodríguez Moncalvo (currently instructor, University of Guelph and Wilfrid Laurier University, Canada)

Graduate Students Advised

- 2016-present Doctoral Thesis Advisor to Catherine Chen
- 2015-present Doctoral Thesis Advisor to Gina Calabrese
- 2015-present Doctoral Thesis Advisor to Rebecca O'Brien
- 2014-present Doctoral Thesis Advisor to Sofia De La Serna Buzon
- 2012-present Doctoral Thesis Advisor to Audrey Kelly
- 2010-2015 Doctoral Thesis Advisor to Emily Schmidt (New York City Teaching Fellow; currently faculty member in the Biology Department of The Bronx High School of Science)
- 2007-2014 Doctoral Thesis Advisor to Sumit Dhole (co-advisor with Dr. Maria Servedio) (currently, postdoctoral scholar at North Carolina State University)
- 2004-2009 Doctoral Thesis Advisor to Amanda Chunco (co-advised with Dr. Maria Servedio) (currently Assistant Professor, Elon College)
- 2007-2009 Master's Thesis Advisor to Elizabeth Wojtowicz (last known position: home maker, Cincinnati, OH)
- 2004-2006 Master's Thesis Advisor to Tatiana Vásquez; (currently faculty member, San Bernadino Community College, CA)

Other Graduate Mentorship

2012-2013 Research Advisor to Lisa Wünsch, University of Tübingen, Germany
(currently research technician, University of North Carolina, Chapel Hill)

Graduate Committee Membership

(all are doctoral students at UNC unless noted)

2016-present Pranav Khandelwal
2016-present Casey Meeks (Master's thesis committee), East Carolina University
2015-present Nicholas Levis
2014-present Christopher Akcali
2013-present Justin Yeh
2012-present Dave Ernst
2012-present Susan Lyons
2012-present Scott Jones, East Carolina University
2011-present Antonio Serrato
2011-present Yuxiang Liu
2011-2015 Justa Heinen, North Carolina State University
2010-2014 Nicholas Garcia (Master's thesis committee)
2010-2012 Jeffrey Paull (Master's thesis committee)
2009-2011 Aaron Leichty (Master's thesis committee)
2009-2013 David Kikuchi
2008-2015 Joel Adamson
2008-2012 Alicia Frame
2008-2011 Pamela Reynolds
2005-2010 Ryan Martin
2005-2010 Mukta Chakraborty
2005-2010 Lisa Mangiamele
2004-2008 Mathew McKown
2002-2008 Amber Rice
2003-2007 Elizabeth Derryberry, Duke University
2001-2006 George Harper

Undergraduate Student Researchers Supervised

(all are Biology undergraduates at UNC unless noted otherwise)

2015-present Rafael Gutierrez
2014-present Bri Sikorski

2014-2015 Matthew Zipple, graduated with "Honors"; R. E. Coker Award recipient;
currently graduate student in Biology, Duke University

2012-2015 Jonathan Villanueva
2013-2014 Kaitlyn Ferguson; graduated with "Research Commendation"; currently
attending veterinary school

2013-2014 Sarah Bradford; graduated with "Research Commendation"
2012-2014 Justin Dizon; graduated with "Research Commendation"
2011-2013 Daijha Copeland, HHMI-FSC Fellow; Dept. of Psychology; graduate student
in Pharmacy at Univ. North Carolina

2012-2013 Jennifer Schneider
2012-2013 Matthew Safford; graduated with "Research Commendation"
2012-2013 Eva Stein; graduated with "Honors"; applying to medical school
2011-2013 Natasha Fisher; graduated with "Honors"; attending graduate school.

2010-2012 Julie Kang; graduated with "Research Commendation"; attending veterinary school, Washington State University

2010-2012 Joshua Dilley; graduated with "Highest Honors"; attending medical school

2010-2012 Lindsay Ross; graduated with "Honors"; attending medical school

2008-10 Katrina Posey; graduated with "Highest Honors"; attending veterinary school, North Carolina State University

2007-10 Elizabeth Alloway; graduated with "Honors"; attending veterinary school; North Carolina State University

2008-09 Michael Pierre; attended law school

2007-09 Haley Davis; graduated with "Honors"; attended Master's program, University of British Columbia

2006-09 Alyssa Stewart; graduated with "Honors"; currently Ph.D. student, University of Maryland; recipient of Rosemary Grant Research Award from the Society for the Study of Evolution and a NSF Graduate Research Fellowship

2007-08 Heidi Block

2006-07 Graham Zimmerman

2006-07 Kelly Haisley; graduated 2007 with "Honors"; attended medical school, University of Washington

2006-07 Meagan Scott; graduated 2007 with "Honors"

2007-08 Laura Exline; last known continuing education Humboldt State University

2005-07 Christine Bookhout; graduated 2007 with "Highest Honors"; R. E. Coker Award recipient; attended medical school, Harvard University

2006 Kristen Reynolds, Partnership for Minority Advancement in the Biomolecular Sciences (PMABS) intern from Johnston C. Smith University; last known applying to graduate programs in neurobiology

2005-06 Christina Lebonville; graduated 2006 with "Honors"; last known position as lab technician, University of North Carolina

2005-06 Amber Somerville; graduated 2006 with "Research Commendation"; attended PA program, Duke University

2005-06 Alycia Reynolds; graduated 2006 with "Honors"; received Ph.D. from Michigan State University

2005-06 Hsin Chen; graduated 2006 with "Research Commendation"

2005 Alex Sheng; attended medical school, University of North Carolina

2004-05 Holly Tuten; Master's student and NSF Predoctoral Fellow recipient, Clemson University

2004-05 Daniel Anderson; graduated 2005 with "Research Commendation"; received MPH from University of North Carolina; last known position as Public Health Officer, US Air Force

2004-05 Alison Carr

2003-04 Alice Wessel

1999-00 Jay Marlowe; graduated 2000 with "Honors"; R. E. Coker Award recipient; received MSW and last known doing social work in Australia

1997-98 Regan McNatt; graduated 1998 with "Research Commendation"; received MS in Zoology from North Carolina State University

1997-98 Katrina Rapa; graduated 1998 with "Highest Honors"; received MD/MPH from University of North Carolina; currently physician in California

High School Student Researchers Supervised

2013-14 Simone Grant, North Carolina School of Science and Math High School
2004-05 C. Rebecca Woltz; North Carolina School of Science and Math High School;
attended North Carolina State University

OUTREACH

- 2016 Delivered technical talks and lab tour for the Girls Advancing in STEM (GAINS) Conference, a national conference for high school girls interested in STEM careers. Organized by the GAINS network (Greenwich Academy, CT) and co-sponsored by Duke University and UNC
- 2015 Delivered presentation "Why do they do that? Adventures in behavioral ecology" for Grey Culbreth Middle School, Chapel Hill, NC
- 2012 Delivered presentation "Behavior and Evolution" for the "Periodic Tables" seminar series, Durham's Science Cafe produced by the Museum of Life and Science, Durham, NC
- 2011 Delivered presentation "What does a biology professor do?" for Rashkis Elementary School, Chapel Hill, NC
- 2010 Judge, final round of NC International Science Challenge
- 2009 Delivered presentation "How to be a biologist" for Rashkis Elementary School, Chapel Hill, NC; developed accompanying pamphlet "How to be a biologist" for elementary students, their teachers, and parents.
- 2008 Guest, "Radio In Vivo" science interview program on WCOM-FM with Ernie Hood, host.
- 2006 Organized a UNC Science Spectrum educational and recruitment event at Univ. of North Carolina entitled "The Science of Evolution" for approximately 300 high school students from across North Carolina