

## **Curriculum Vitae**

Ken N. Paige

Professor

Department of Animal Biology

(Formerly Department of Ecology, Ethology & Evolution)

School of Integrative Biology

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### **EDUCATION**

B.S., Arkansas State University, Wildlife Management (1978)

M.S., Arkansas State University, Biology (1981)

Major Advisor - Dr. V. Rick McDaniel

Ph.D., Northern Arizona University, Evolutionary Ecology/Zoology (1986)

Major Advisor - Dr. Thomas G. Whitham

### **POSITIONS HELD**

#### *Research*

- Faculty, Department of Ecology, Ethology and Evolution, University of Illinois; Assistant Professor (1988-1994); Associate Professor (1994-2002), Professor (2002-present)
- Head of Department of Animal Biology (Formerly Department of Ecology, Ethology and Evolution) 2003-2014
- Faculty Member (1 of 12 Provost appointed members), Environmental Council, University of Illinois (2006-2013)
- Associate Head of Department of Ecology, Ethology & Evolution (1999-2000), Associate Head of Department of Animal Biology (2000-2003)
- Faculty, Institute for Environmental Studies, University of Illinois (1988-1996)
- Member Program in Ecology and Evolutionary Biology (1998-present)
- Affiliate, Department of Forestry and the Department of Natural Resources and Environmental Sciences (1994-present)
- Faculty Member of the Plant Ecology Program (1990-1996)
- Affiliate, Illinois Natural History Survey, Wildlife Center (1991-present)
- Post-Doctoral Fellow / Research Assistant Professor, University of Utah, Molecular Genetics (1986-1988)
- Research Associate, Museum of Northern Arizona (1986)
- Research Associate, Northern Arizona University (1982-1984)
- Research Associate, Memphis State University Ecological Research Center (1980-1981)
- Research Assistant, Environmental Protection Agency (Fall 1980)
- Consultant, Department of Energy (Summer 1980)

- Field Assistant, Arkansas Archaeological Survey (1978)
- Assistant Curator of Mammals and Birds, Arkansas State University (1974-1978)

*Teaching*

- Faculty, University of Illinois, Institute for Environmental Studies and the Department of Ecology, Ethology and Evolution/Department of Animal Biology (1988-present)
  - Evolutionary Ecology (Lectures & Discussion)
  - Conservation Biology (Lectures, Lab & Discussions)
  - Tomorrows Environment (Lectures)
  - Environmental Biology (Lectures/Discussions)
  - Forensics – Conservation Genetics (Guest lecturer)
  - Integrative Ecosystem Management (Guest lecturer)
  - Ecology (Guest lecturer)
  - Genetic Toxicology (Guest lecturer)
  - Evolution (Guest lecturer)
  - Honors Biology (Guest lecturer)
  - Undergraduate Research
  - Graduate Research
  - Careers in Biology (Guest lecturer)
  - Ecological Genetics (Guest lecturer)
  - Fish and Wildlife Ecology (Guest lecturer)
  - Plant Ecology (Seminar)
  - Evolution of Sex (Seminar)
  - Concepts in Ecology (Seminar)
  - Skills in Ecology Seminar (Guest lecturer)
  - Ornithology Lab (Guest lecturer)
  - Discovery Course (Guest lectures)
  - Fundamental Papers in Evolution (Seminar)
  - Phenotypic Evolution (Seminar)
  - Office of Lifelong Learning – Animal Behavior, Biodiversity (Organizer/Lecturer)
  - Undergraduate Research – An Introduction
  - Capstone Project-based course in Civil Engineering and Sustainability
- Faculty Associate, Northern Arizona University, Department of Biological Sciences (1984-1986)
  - Fundamentals of Ecology (lectures & weekly field lab)
  - General Biology (lectures)
  - Plant Ecology (a few labs & lectures)
  - General Zoology (lectures)
  - Cell Biology (Guest lecturer)
  - Environmental Science (Guest lecturer)
- Graduate Teaching Assistant, Northern Arizona University, Department of Microbiology (1981-1982)
  - Medical Anatomy & Physiology

- Graduate Teaching Assistant, Arkansas State University, Department of Biological Sciences (1978-1980)

Animal Ecology  
Natural History of the Vertebrates  
Parasitology  
Invertebrate Zoology  
Mammalogy  
Ornithology  
Comparative Anatomy

- Interpretive Naturalist, Village Creek State Park, Arkansas (Summer 1979)

- River Guide, Gastons White River Resort, Lakeview, Arkansas (1973-1974)

### **UNDERGRADUATE RESEARCH PROGRAM**

2013-present - Co-developer/co-organizer of the LAS Access and Achievement /Animal Biology undergraduate summer fellowships for underrepresented students in biology. Has served fourteen URM students to date. Raised over \$105,000 in support of this program.

### **EDITORIAL BOARDS**

-Board of Editors *Conservation Biology* 1998-present – Handle approximately 12 manuscripts per year

-Editor-in-Chief *Conservation Biology* 2012-2013

-Board of Editors *Ecology/Ecological Monographs* 2015-2017 – Handle approximately 12 manuscripts per year

-Acting Editor-in-Chief for a special Forum titled “Plant adaptation to herbivory: overcompensation inspiring tolerance studies for 30 years” 2017

### **REVIEWING/EDITING**

#### *Journal Reviews*

Peer Reviewer for *Acta Oecologia*, *American Journal of Botany*, *American Naturalist*, *Auk*, *Austral Ecology*, *Biological Conservation*, *BioScience*, *BMC Evolutionary Biology*, *Canadian Journal of Forest Research*, *Conservation Biology*, *Conservation Genetics*, *Ecological Applications*, *Ecogeography*, *Ecology*, *Ecology Letters*, *Ecological Monographs*, *Ecology and Evolution*, *Evolution*, *Evolutionary Ecology*, *Electrophoresis*, *European Journal of Plant Pathology*, *Genetics*, *Journal of Ecology*, *Journal of Biogeography*, *Journal of Insect Science*, *Journal of Mammalogy*, *Journal of Wildlife Management*, *Molecular Ecology*, *Nature*, *Natural History*, *New Phytologist*, *New Zealand Journal of Botany*, *Journal of Insect Science*, *Oikos*, *Oecologia*, *Plant Ecology*, *Proceedings of the Arkansas Academy of Sciences*, *Proceedings of the National Academy of Sciences*, *Quarterly Review of Biology*, *Proceedings of the Royal Society, Science*, *The American Midland Naturalist*, *Trends in Ecology and Evolution*, *Trends in Plant Sciences*, *Vegetation Science*, *Wildlife Society Bulletin*, *Zoo Biology*

#### *Grant/Fellowship Reviews*

Reviewer for National Science Foundation Population Biology, National Science Foundation

Ecology, National Science Foundation Ecosystems, National Science Foundation Animal Behavior, National Science Foundation Dissertation Improvement Grants, National Science Foundation Graduate Research Fellowships Program, Nebraska EPSCoR, National Science Foundation Population & Evolutionary Processes, National Science Foundation Biodiversity: Discovery & Analysis, National Science Foundation, USDA/NIFA Plant Biotic Interactions Program, USDA/CREES, National Science Foundation Partnership for International Research and Education (PIRE) program, National Institute of Health, Environmental Protection Agency Star Fellowships, ILAC Research & Development, Israel Science Foundation, Faculty Incentive Grant Bowling Green State University, Illinois Groundwater Consortium, Sea Grant Illinois-Indiana, C-FAR, Reviewer for Sigma Xi Student Award, Reviewer for a Faculty Release-Time Fellowship Tufts University

## **GRANTS**

### *External*

National Science Foundation. “Increasing per hectare yields in soybean, *Glycine max*. Ken N. Paige. 2018-2021. \$762,751. Pending.

Templeton Foundation. “The functional significance of within plant somatic mutation”. Ken N. Paige 2018-2021. \$649,805. Pending.

National Science Foundation. “The role of endoreduplication in mitigating the detrimental effects of herbivory”. Ken N. Paige 2012-2018. \$440,000. Funded.

National Science Foundation ROA. “The Role of Endoreduplication in Mitigating the Detrimental Effects of Herbivory”. To Ken N. Paige. \$24,995. Funded.

National Science Foundation REU Supplement to “The role of endoreduplication in mitigating the detrimental effects of herbivory” to Ken N. Paige \$6,250.00. Funded.

National Science Foundation Dissertation Improvement Grant. “The genetic basis of endoreduplication and fitness compensation in plants”. Ken N. Paige and Daniel Scholes. 2013-2014. \$20,618. Funded.

National Science Foundation. “Somatic mutations in plants”. Ken N. Paige EAGER. \$286,403. 2009-2013. Funded.

National Science Foundation Dissertation Improvement Grant. Seeking evidence for glacial refugia of North American White Spruce. 2005-2006. \$12,000 Lynn Anderson, Feng-Sheng Hu and Ken N. Paige.

National Science Foundation. REU Supplement to “The evolution of tolerance to herbivory among populations of scarlet gilia, *Ipomopsis aggregata*”. 2001-2006. \$31,500. Ken N. Paige.

- National Science Foundation Dissertation Improvement Grant. Surviving the ice: northern refugia and post-glacial recolonization. Kevin Rowe, Ken N. Paige, and Ed Heske. DEB-0422957. 2004-2005. \$11,965
- National Science Foundation. "The evolution of tolerance to herbivory among populations of scarlet gilia, *Ipomopsis aggregata*". 2001-2006. \$440,000. Ken N. Paige and Jeffrey K. Conner.
- Wildlife Preservation Fund, Illinois Endangered Species Protection Board. "Ecology and Conservation of Swainson's Hawk in Illinois". 2003-2004. \$12,500 Dan Wenny, Ken N. Paige, Dave Enstrom, Todd Coleman and Dan Kirk.
- USDA-CREES. "An integrated approach to detect, monitor, and manage Asian longhorned beetle in North America". 2000-2004. \$219,383. IFAFS 14.2. Lawrence M. Hanks and Ken N. Paige.
- U.S. Fish and Wildlife Service. Conservation genetics of the regal fritillary butterfly". 1998-2000. \$12,000. Ken N. Paige and Barry Williams.
- Army Research Office. "Assessing the effects of ecosystem disturbance on biodiversity in the arid and semi-arid environments of the American southwest". 1995-1998. \$1,990,219.00. Eight P.I.'s from Departments of Urban and Regional Planning, Geography, Landscape Architecture, Illinois Natural History Survey and Institute for Environmental Studies. Personal share - \$393,946.00.
- National Science Foundation Dissertation Improvement Grant. "Predicting the demography and short-term evolution of *Arabidopsis thaliana* in response to increased UV-B radiation". Grant no. DEB-9412068. 1994-1996. \$6,500. Lyle Trumbull and Ken N. Paige.
- Illinois Endangered Species Protection Board. "Genetic variability in the Greater Prairie Chicken in Illinois". 1992. \$2,000.
- National Science Foundation. "Plant hybrid zones as focal points of insect biodiversity and bridges for host shifting". Grant no. BSR-91. 1991-1994. \$24,771. Sub-contract.
- National Science Foundation. "Overcompensation in response to mammalian herbivory: measures of true fitness, alternative selection pressures, comparative responses, and the genetics of overcompensation". Grant no. BSR-8917556. 1990-1993. \$170,438.
- National Science Foundation. "Hybrid zones and hybrid plants as "sinks" for herbivores". NSF Grant No. BSR-8907686. 1989-1991. \$142,000. Co-P.I. Dr. Thomas G. Whitham.

National Science Foundation. "Variation in host suitability and mechanisms of resistance to parasite attack". 1986-1989. \$245,000. Co-written with Dr. Thomas G. Whitham (P.I.). Post-doctoral support.

National Science Foundation Dissertation Improvement Grant. "The ecological significance of flower color variation in *Ipomopsis aggregata*: Is it a mechanism for pollinator tracking?" Grant no. BSR-8312753. 1983-1985. \$6,610.

Sigma Xi. "Flower color variation in *Ipomopsis aggregata*: Is it a mechanism for pollinator tracking?" 1983-1984. \$500.

Theodore Roosevelt Memorial Fund. "Resource utilization and species coexistence in a northeast Arkansas bat community." 1979. \$400.

Sigma Xi. "Resource utilization and species coexistence in a northeast Arkansas bat community. 1979. \$150.

#### *Internal*

UIUC Research Board. "The molecular interdependence of plant tolerance and resistance". 2015-2018. \$20,821. Ken N. Paige

UIUC Research Board. "Somatic mutations in plants". 2009-2011. \$12,000. Ken N. Paige.

UIUC Research Board. "Genetics of axillary meristems in *Arabidopsis thaliana*". 2003-2004. \$17,000. Thomas Jacobs and Ken N. Paige.

UIUC Research Board. "Effects of urban development on gene flow in small mammals associated with riparian forests of Illinois". 2003-2004. \$18,144. Edward Heske and Ken N. Paige.

UIUC Research Board. "Functional genomics of inbreeding depression". 2003-2004. \$15,000. Carla Caceres, Ken N. Paige, Kim Hughes, Greg Whitt.

UIUC Research Board "A molecular-genetic approach to understanding postglacial migration patterns of *Picea* (spruce) in western North America". 2002-2004. \$12,500. Lynn Anderson, Feng Sheng-Hu and Ken N. Paige.

UIUC Research Board. "Functional genomics of overcompensation using cDNA microarrays. 2001-2004. \$24,594. Ken N. Paige.

UIUC Research Board. "Overcompensation and the paternal component of fitness". 1998-1999. \$17,700.

UIUC Research Board. "The evolution of overcompensation in scarlet gilia". 1997.  
\$15,908.

UIUC Research Board. "Inbreeding depression, environmental stress and fitness compensation  
by scarlet gilia". 1993. \$13,839.

Biomedical Research Support Grant, National Institute of Health. "Evolutionary response of  
scarlet gilia to UV-B radiation". Grant no. PHS RR-7030. 1991-1992. \$2,500.

UIUC Research Board. "Beneficial effects of herbivory". GR IC IES Paige 1-2-69504. Summer  
1989. \$6,780.

Biomedical Research Support Grant, National Institute of Health. "Within and between plant  
variation in host suitability and the genetic basis of resistance to parasite attack". BRSG  
Grant No. NIH RR-7030. 1988-1989. \$5,882.

Biomedical Research Support Grant, National Institute of Health. "Genetic basis of resistance to  
parasite attack". BRSG Grant No. S07 RR07092. 1987-1988. \$5,000.

## **HONORS & RECOGNITION**

Levenick Teaching Fellow 2016

Fellow, AAAS, Elected 2007

Nominated (Pending) Fellow, Ecological Society of America 2019, members who have  
made outstanding contributions to the field of ecology

Fellow, Sigma Xi, Elected 1980

Arnold O. Beckman Award 2009, project of special distinction, innovation and unusual promise.

Appointed Editor-in-Chief, *Conservation Biology*, 2012

Governance Committee, Society for Conservation Biology, 2016-2017

Editorial Board, *Conservation Biology*, 1998-present

Editorial Board, *Ecology/Ecological Monographs*, 2015-2018

Ecological Society of America Undergraduate/Graduate Student Mentor 2016

Ecological Society of America, Plant Population Ecology Section

List of Teachers Ranked as Excellent by their Students – Conservation Biology, Undergraduate Research

## PUBLICATIONS

Olds, B.P., P. J. Mulrooney, D.R. Scholes, B.R. Pittendrigh and K.N. Paige. 2017. Trees as mosaics of genetic variability: An assessment of the somatic mutation hypothesis. *Science Advances*. For Submission.

Allsup, C.M., R.A. Lankau, and K.N. Paige. 2017. Arbuscular mycorrhizal fungal associations with an overcompensating plant: the interactive effects of herbivory and water availability on abundance, composition, and fitness compensation. *Oecologia*. For Submission.

Satu, R., K.N. Paige, T. Lennartsson, and J. Tuomi. 2017. Plant adaptation to herbivory: overcompensation inspiring tolerance studies for 30 years. *Ecology*. Accepted pending revision.

Paige, K.N. 2017. Conservation genetics: founding principles, primary concerns. In, *Foundations in Conservation Biology*, J.D. Brawn, C. Meine, and S.K. Robinson, eds. University of Chicago Press, Chicago. In press. Invited.

Mesa, J.M., D.R. Scholes, and K.N. Paige. 2017. The molecular interdependence of plant resistance and tolerance. *Ecology*. Published on-line July 17<sup>th</sup>.

Scholes, D.R., E.N. Rasnick, and K.N. Paige. 2017. Characterization of *Arabidopsis thaliana* growth and regrowth patterns suggest a tradeoff between fitness and damage tolerance. *Oecologia* 184:643–652.

Scholes, D. R., J. Dalrymple, J. M. Mesa, J. A. Banta and K. N. Paige. 2016. The genetic basis of variation in tolerance to apical meristem damage in natural populations of *Arabidopsis thaliana*. *Plant Ecology* 218:265-276.

Allsup, C.M. and K.N. Paige. 2016. Belowground fungal associations and water interact to influence the compensatory response of *Ipomopsis aggregata*. *Oecologia* 180:463-474.

Scholes, D.R., A. E. Wszalek, and K. N. Paige. 2016. Regrowth patterns and rosette attributes contribute to the differential compensatory performances of *Arabidopsis thaliana* genotypes to apical damage. *Plant Biology* 18:239-248.



Siddappaji, M.H., D. R. Scholes, S. M. Krishnankutty, B. Calla, S.J. Clough, R.E. Zielinski, and K.N. Paige. 2015. Role of invertase genes in compensatory responses following simulated herbivory. *BMC Plant Biology* 15:278 (1-12).

Scholes, D.R. and K.N. Paige. 2015. Transcriptomics of plant compensatory responses to herbivory reveals no tradeoff between tolerance and defense. *Plant Ecology* 216:1177–1190.

Scholes, D.R. and K.N. Paige. 2014. Plasticity in ploidy: a generalized stress response. *Trends in Plant Science* 20:165-175. Invited.

Scholes, D.R. and K.N. Paige. 2014. Plasticity in ploidy underlies plant fitness compensation to herbivore damage. *Molecular Ecology* 23:4862–4870.

Scholes, D.R., A. Suarez, A. Smith, J. Johnston, and K.N. Paige. 2014. Patterns of endopolyploidy and organ function in the giant ant *Dinoponera australis*. *Journal of Hymenopteran Research*. 37:113-126.

Previte, D., B. Olds, K. Yoon, W. Sun, W. Muir, K.N. Paige, S.H. Lee, J. Clark, J. Koehler, and B.R. Pittendrigh. 2014. Differential gene expression in human head and body lice when challenged with *Bartonella quintana*, a pathogenic bacterium. *Insect Molecular Biology* 23:244-254.

Johnson, K.P., J.M. Allen, B.P. Olds, L. Mugisha, D.L. Reed, K.N. Paige, and B.R. Pittendrigh. 2013. Rates of genomic divergence in humans, chimpanzees, and their lice. *Proceedings of the Royal Society of London B* 281: 20132174.

Daniel R. Scholes, Madhura H. Siddappaji and Ken N. Paige. 2013. The genetic basis of overcompensation in plants: A synthesis. *International Journal of Modern Botany*. 3:34-42  
Invited.

Siddappaji, M.H., D.R. Scholes, and K.N. Paige 2013. Overcompensation in response to herbivory in *Arabidopsis thaliana*: the role of glucose-6-phosphate dehydrogenase and the oxidative pentose-phosphate pathway. *Genetics* 195:589-598. *Published on-line August 9, 2013*.

Scholes, D.R., A.V. Suarez, and K.N. Paige. 2013. Can endopolyploidy explain body size variation within and between castes in ants? *Ecology and Evolution* 1-10. Open Access.

Olds, B.P., B.S. Coates, L.D. Steele, W. Sun, T.A. Agunbiade, K.S. Yoon, J.P. Strycharz, S. H. Lee, K.N. Paige, J.M. Clark, and B.R. Pittendrigh. 2012. Comparison of the transcriptional profiles of head and body lice. *Journal of Insect Molecular Biology*. 21:257-268.

Scholes, D.R. and K.N. Paige. 2011. Chromosomal plasticity: mitigating the impacts of herbivory. *Ecology* 92:1691-1698.

Sarup, P., J.G. Sørensen, T.N. Kristensen, A.A. Hoffmann, V. Loeschcke, K.N. Paige, and P. Sørensen. 2011. Candidate genes detected in transcriptome studies are strongly dependent on genetic background. *PloS ONE* 6:1-5

Anderson, L.L., F.S. Hu and K.N. Paige. 2011. Phylogeographic history of white spruce during the last glacial maximum: uncovering cryptic refugia. *Journal of Heredity* 102:207-216. Published on-line October 18.

Paige, K.N. 2010. The functional genomics of inbreeding: A new approach to an old problem. *BioScience 21<sup>st</sup> Century Directions in Biology*. 60:267-277. Invited.

Sano, C.M., M.O. Bohn, K.N. Paige and T.W. Jacobs. 2009. Heritable variation in the inflorescence replacement program of *Arabidopsis thaliana*. *Theoretical and Applied Genetics* 119:1461-1471. Published online September 29 2009.

Ayroles, J., K.A. Hughes, K. Rowe, M. Reedy, S. L. Rodriguez-Zas, J. Drnevich, C. Caceres, and K.N. Paige. 2009. Genome-wide assessment of inbreeding depression: gene number, function and mode of action. *Conservation Biology* 23:920-930. Published online March 11, 2009.

Anderson, L.L., F.S. Hu, D.M. Nelson, R.J. Petit, and K.N. Paige. 2006. Ice age endurance: DNA evidence of a white spruce refugium in Alaska. *Proceedings of the National Academy of Sciences* 103:12447-12450.

Hughes, K.A., J. Ayroles, M. Reedy, J. Drnevich, K. Rowe, C. Carceres and K.N. Paige. 2006. Within-population variation in the transcriptome: cis versus trans regulation and dominance effects of alleles. *Genetics* 173:1-9.

Rowe, K.C., E.J. Heske, and K.N. Paige. 2006. Comparative phylogeography of chipmunks and white-footed mice in relation to the individualistic nature of species. *Molecular Ecology* 15:4003-4020.

Wenny, D., L.L. Anderson, D. Kirk, J. Bergstrom, D. Enstrom and K.N. Paige. 2006. Genetic consequences of ecological isolation of Swainson's Hawk in Illinois. *Journal of Raptor Research* 40:270-276.

Rowe, K.C., E. J. Heske, P. W. Brown, and K.N. Paige. 2004. Surviving the ice: northern refugia and post-glacial recolonization. *Proceedings of the National Academy of Sciences* 101:10355-10359.

Levine, M.T. and K.N. Paige. 2004. Direct and indirect effects of drought on compensation following herbivory in scarlet gilia. *Ecology* 85:3185-3191.

- Bidart-Bouzat, M.G., S. Portnoy, E.H. DeLucia, and K.N. Paige. 2004. Trait integration in *Arabidopsis thaliana* exposed to herbivory and enriched CO<sub>2</sub> environments. *Ecology Letters* 7:837-847.
- Anderson, L.L. and K.N. Paige. 2003. Multiple herbivores and coevolutionary interactions in an *Ipomopsis* hybrid swarm. *Evolutionary Ecology* 17:139-156.
- Williams, B.L., J.D. Brawn and K.N. Paige. 2003. Landscape scale genetic effects of habitat fragmentation on a high gene flow species: *Speyeria idalia* (Nymphalidae). *Molecular Ecology* 12:11-20.
- Maherali, H., B. Williams, K.N. Paige, and E.H. DeLucia. 2002. Hydraulic differentiation of Ponderosa pine populations along a climate gradient is not associated with ecotypic divergence. *Functional Ecology* 16:510-521.
- Williams, B.L., J.D. Brawn and K.N. Paige. 2002. Highly polymorphic microsatellite loci for *Speyeria idalia* (Lepidoptera: Nymphalidae). *Molecular Ecology Notes* 2:87-88.
- Parker, R.W., K.N. Paige and A. DeVries. 2002. Genetic variation among populations of the Antarctic toothfish: evolutionary insights and implications for conservation. *Polar Biology* 25:256-261.
- Anderson, L.L., F.S. Hu, and K.N. Paige. 2001. A molecular approach to understanding the late-quaternary history of spruce (*Picea*) in eastern Beringia. *Paleotimes* 11-12.
- Paige, K.N., B. Williams and T. Hickox. 2001. Overcompensation through the paternal component of fitness in *Ipomopsis arizonica*. *Oecologia* 128:72-76.
- Rubin, C.S., R.E. Warner, and K.N. Paige. 2001. An evaluation of the population genetic structure of Blanding's turtles (*Emydoidea blandingii*) in an urban landscape. *Biological Conservation* 99:323-330.
- Paige, K.N. 1999. Regrowth following ungulate herbivory in scarlet gilia, *Ipomopsis aggregata*: geographic evidence for overcompensation. *Oecologia* 118:316-323.
- Bouzat, J.L., H.A. Lewin, and K.N. Paige. 1998. The ghost of genetic diversity past: ancient DNA analysis of the Greater Prairie Chicken. *The American Naturalist* 152:1-6.
- Bouzat, J.L., H.H. Cheng, H.A. Lewin, R.L. Westemeier, J.D. Brawn, and K.N. Paige. 1998. Genetic evaluation of a demographic bottleneck in the greater prairie chicken (*Tympanuchus cupido*). *Conservation Biology* 12:836-843.

- Westemeier, R.L., J.D. Brawn, S.A. Simpson, T.L. Esker, R.W. Jansen, J.W. Walk, E.L. Kershner, J.L. Bouzat, and K.N. Paige. 1998. Tracking the long-term decline and recovery of an isolated population. *Science* 282:1695-1698.
- Gronemeyer, P.A., B.J. Dilger, J.L. Bouzat, and K.N. Paige. 1997. The effects of herbivory on paternal fitness in scarlet gilia: better moms also make better pops. *The American Naturalist* 150:592-602.
- Paige, K.N. and M.S. Heschel. 1996. Inbreeding depression in scarlet gilia, *Ipomopsis aggregata*: a reply to Ouborg and van Groenendael. *Conservation Biology* 10:1292-1294.
- Trame, A., A.J. Coddington, and K.N. Paige. 1995. Field and genetic studies testing optimal outcrossing in *Agave schottii*, a long-lived clonal plant. *Oecologia* 104:93-100.
- Paige, K.N. 1995. Bats and barometric pressure: conserving limited energy and tracking insects from the roost. *Functional Ecology* 9:463-467.
- Heschel, M.S. and K.N. Paige. 1995. Inbreeding depression, environmental stress, and population size variation in scarlet gilia, *Ipomopsis aggregata*. *Conservation Biology* 9:126-133.
- Paige, K.N. 1994. Herbivory and *Ipomopsis aggregata*: differences in response, differences in experimental protocol, a reply to Bergelson and Crawley. *The American Naturalist* 143:739-749.
- Lewin, H.A., E.M. Spevak, and K.N. Paige. 1993. Genetic management of herd health and productivity: molecular strategies. *Proceedings of the 1<sup>st</sup> International Bison Conference*.
- Paige, K.N. and W.C. Capman. 1993. The effects of host-plant genotype, hybridization and environment on gall aphid attack and survival in cottonwood: the importance of genetic studies and the utility of RFLP's. *Evolution* 47:36-45.
- Paige, K.N. 1992. The effects of fire on scarlet gilia: an alternative selection pressure to herbivory? *Oecologia* 92:229-235.
- Paige, K.N. 1992. Overcompensation in response to mammalian herbivory: from mutualistic to antagonistic interactions. *Ecology* 73:2076-2085.
- Paige, K.N., W.C. Capman and P. Jennetten. 1991. Mitochondrial inheritance patterns across a cottonwood hybrid zone: cytonuclear disequilibria and hybrid zone dynamics. *Evolution* 45:1360-1369.

- Keim, P., K.N. Paige, T.G. Whitham, and K.G. Lark. 1989. Genetic analysis of an interspecific hybrid swarm of *Populus*: occurrence of unidirectional introgression. *Genetics* 123:557-565.
- Keim, P., K.N. Paige, T.G. Whitham, and K.G. Lark. 1989. The genetic-structure of a *Populus* hybrid swarm and the correlation of insect susceptibility of specific genetic classes. *Genetics* 122:S30.
- Paige, K.N. 1988. The wildest wildflower in the west. *Natural History* 97:49-53.
- Paige, K.N. and T.G. Whitham. 1987. Flexible life history traits: shifts by scarlet gilia in response to pollinator abundance. *Ecology* 68:1691-1695.
- Paige, K.N. and T.G. Whitham. 1987. Overcompensation in response to mammalian herbivory: the advantage of being eaten. *The American Naturalist* 129:407-416.
- Paige, K.N. and T.G. Whitham. 1985. Individual and population shifts in flower color by scarlet gilia: a mechanism for pollinator tracking. *Science* 227:315-317. *Cover photo featured for this issue.*
- Paige, K.N., L.A. Mink, and V.R. McDaniel. 1985. A broadband ultrasonic field detector for monitoring bat cries. *Journal of Wildlife Management* 49(1):11-13.
- McDaniel, V.R., M.J. Harvey, C.R. Tumblison, and K.N. Paige. 1983. Status of the small-footed bat, *Myotis leibii* in the Southern Ozarks. *Proceedings of the Arkansas Academy of Science* 36:92-94.
- Paige, K.N., C.R. Tumblison, and V.R. McDaniel. 1981. A second record of *Typhlichthys subterraneus* from Arkansas. *Southwestern Naturalist* 26:67-68.
- Sutton, K.B. and K.N. Paige. 1980. Geographic distribution: *Ambystoma talpoideum*. *SSAR Herp Review* II (I):13.
- McDaniel, V.R., K.N. Paige, and C.R. Tumblison. 1979. Cave fauna of Arkansas: additional invertebrate and vertebrate records. *Proceedings of the Arkansas Academy of Science* 33:84-85.
- Paige, K.N., C.T. McAllister, and C.R. Tumblison. 1979. Unusual results from pellet analysis of the American Barn Owl, *Tyto alba pratincola* (Bonaparte). *Proceedings of the Arkansas Academy of Science* 33:88-89.

## BOOK CHAPTERS/REVIEWS

- Owen-Smith, N. 2002. *Adaptive Herbivore Ecology: From Resources to Populations in Variable Environment*. Cambridge Studies in Ecology. 374pp. *The Quarterly Review of Biology* 78:121.

Whitham, T.G., J. Maschinski, K.C. Larson, and K.N. Paige. 1991. Plant responses to herbivory: the continuum from negative to positive and underlying physiological mechanisms. In Plant-Animal Interactions: Evolutionary Ecology in Tropical and Temperate Regions (P.W. Price & G.W. Fernandes, eds.) *Wiley Publishers*, pp 227-256.

Paige, K.N., P. Keim, T.G. Whitham and K.G. Lark. 1990. The use of restriction fragment length polymorphisms to study the ecology and evolutionary biology of aphid-plant interactions. In Aphid-Plant Genotype Interactions (R.K. Campbell & R.D. Eikenbary, eds.) *Elsevier Science Publishers B.V.*, pp 69-87.

## POPULAR AND REVIEW ARTICLES

Scientific and popular coverage of our 1985 Science article appeared in the following: Science News, Science 85 (U.S., Italy, Japan), Discover, The New York Times, The Economist, Scientific American, BBC Wildlife News, SCAN, GEO (West Germany), Ward's Bulletin, Science Digest, Facts on File Scientific Yearbook (1985), Keeton and Gould's 5th edition 1986 and 6th edition 1996 of "Biological Science", Raven et al.'s 4th edition of "The Biology of Plants" 1986, Johnson's "Biology" 1987, Current Science

Scientific and popular coverage of our 1987 American Naturalist article appeared in Lewin, R. 1987. On the benefits of being eaten. *Science* 235:519-520. Crawley, M.J. 1987. Benevolent herbivores? *Trends in Ecology and Evolution* 2:167-168. Arizona Highways. May Issue, 1993. Ricklefs, R.E. and G.L. Miller. 2000. *Ecology*. W.H. Freeman and Company, New York. Thompson, J.N. 1994. *The Coevolutionary Process*. The University of Chicago Press, Chicago.

Popular coverage of my 1995 Functional Ecology article appeared in the following: New Scientist. July Issue, 1995, GEO. September Issue, 1995, BBC Wildlife. September Issue, 1995, Discovery Channel., Wildlife, WSOY Radio in Decatur, Illinois, Discover Magazine. February Issue, 1996, Popular Science, Inside Illinois, News Gazette, Canadian Broadcasting Corporation - Radio Interview.

Scientific and popular coverage of our genetic work on the Illinois state endangered greater prairie chicken presented at the 1997 Ecological Society meetings appeared in the following: Kaiser, J. 1997. Fingering a genetic bottleneck. *Science* 277:1205, Holmes, B. 1997. Chickening out. *The New Scientist*. 155:13.

Popular coverage of my compensatory work on scarlet gilia presented at the 1997 Ecological Society meetings appeared in the following: Holmes, B. 1997. Eat me, eat me. *The New Scientist* 155:13-14.

Scientific and popular coverage of our 1998 Science article appeared in the following: Soule, M.E. and L.S. Mills. 1998. No need to isolate genetics. *Science* 282:1658-1659. The New York Times.

Scientific and popular coverage of our 2004 Proceedings of the National Academy of Science article was featured on National Public Radio “All Things Considered”, in the New Yorks Times, Discover, Science News, Science World Magazine, and over 120 new-papers world-wide.

WICD TV “Sunrise on the Farm” TV interview on inbreeding depression – March 17<sup>th</sup>, 2009

Inside Illinois – March 19, 2009 – “A first look at the genetic dynamics of inbreeding depression”.

Numerous blogs picked up our inbreeding depression article and posted them on the web.

Nature News. 2012. Tree’s leaves genetically different from its roots.

## **SERVICE**

### *Public Service*

Chair, Environmental Sector for Partnership Illinois – outreach program for citizens with environmentally related questions/issues for which they need advise or answers

Organized two MillerComm public lecture series; “Losing biological diversity: a global crisis” (1990) and “Ecology and evolution in a changing world” (1999). The more recent lecture series, in particular, involved three world-renowned evolutionary ecologists, Peter Vitousek from Sanford University and a member of the National Academy of Sciences, Spencer Barrett from the University of Toronto and Fellow of the Royal Society of Canada, and David Tilman from the University of Minnesota, Distinguished McKnight University Professor.

Invited Hughes Summer Fellows lecture on how Graduate Programs work and ways of enhancing chances of being accepted, June 2000

### *Service to Professional Societies/Review Panels*

Member of Local Organizing Committee, for annual meeting of the Society for the Study of Evolution, held in Urbana/Champaign, June 2002

Minority Biological Research Studies (MBRS) Site Reviewer, National Institute of Health, California State University, Northridge, 1992

Doctoral Dissertation Advisory Panel, National Science Foundation, Division of Environmental Biology, Population Biology Section, Arlington, Virginia, 1996

Life Sciences Eco-Related Peer Review Panel, U.S. Environmental Protection Agency, Washington D.C., 1997

Molecular Ecology Panel, Department of Defense, 1998

Population & Evolutionary Processes Advisory Panel, National Science Foundation, Division of Environmental Biology 2005

Reviewer Canon National Parks, Science Scholars for the Americas, American Association for the Advancement of Science 2005

South African National Research Foundation – Reviewer - Professor David Ward 2005

Organism and Environment Interactions Panel, National Science Foundation, Division of Environmental Biology, Arlington Virginia, 2010

GRFP Ecology Panel, National Science Foundation, Division of Environmental Biology, 2016

*University Service*

- 1988-1989 Environmental Health and Safety Committee, School of Life Sciences  
Speakers Committee, Chair, Department of Ecology, Ethology and Evolution  
Facilities Committee, Institute for Environmental Studies  
Speakers Committee, Institute for Environmental Studies
- 1989-1990 Search Committee, Conservation Biologist, Illinois Natural History Survey  
Executive Committee, Institute for Environmental Studies  
Search Committee, Department Head, Department of Ecology, Ethology and Evolution  
Facilities Committee, Institute for Environmental Studies
- 1990-1991 Environmental Health and Safety Committee, School of Life Sciences  
EEE Steering Committee, School of Life Sciences  
Search Committee, Quantitative Ecologist, Illinois Natural History Survey  
Executive Committee, Institute for Environmental Studies
- 1991-1992 Environmental Health and Safety Committee, School of Life Sciences  
Seminar Committee, Institute for Environmental Studies  
Executive Committee, Institute for Environmental Studies
- 1992-1993 Education Committee, Institute for Environmental Studies  
Executive Committee, Institute for Environmental Studies
- 1993-1994 Education Committee, Institute for Environmental Studies
- 1994-1995 Executive Committee, Institute for Environmental Studies  
Education Committee, Institute for Environmental Studies, Chair  
Environmental Health and Safety Committee, Chair, School of Life Sciences  
Sciences  
Graduate Programs Committee, Department of Ecology, Ethology and Evolution
- 1995-1996 Facilities Committee, Institute for Environmental Studies, Chair  
Executive Committee, Institute for Environmental Studies  
Promotion and Tenure Committee, Institute for Environmental Studies  
Environmental Health and Safety Committee, Chair, School of Life Sciences  
Graduate Programs Committee, Department of Ecology, Ethology and Evolution  
M.S./M.S.T. Biology Admissions Committee, School of Life Sciences  
Senate Subcommittee on Undergraduate Student Conduct, U. of IL  
Council of Deans  
Partnership Illinois Council, Chancellor's Committee  
Chair Environmental Sector of Partnership Illinois  
President's Retreat, The future of the University of Illinois
- 1996-1997 Graduate Programs Committee, Department of Ecology, Ethology and Evolution  
M.S./M.S.T. Biology Admissions Committee, School of Life Sciences  
Senate Subcommittee on Undergraduate Student Conduct, U. of IL  
Council of Deans  
Partnership Illinois Council, Chancellor's Committee  
Chair Environmental Sector of Partnership Illinois



Executive Committee for Natural Resource Ecology and Conservation Graduate Program, College of Agriculture  
 Advisory Committee, Department of Ecology, Ethology and Evolution  
 Ad hoc committee, formation of the Department of Animal Biology  
 Ad hoc committee, formation of the Program in Ecology and Evolutionary Biology  
 1997-1998 Graduate Programs Committee, Department of Ecology, Ethology and Evolution  
 M.S./M.S.T. Biology Admissions Committee, School of Life Sciences  
 Executive Committee for Natural Resource Ecology and Conservation Graduate Program, College of Agriculture  
 Advisory Committee, Department of Ecology, Ethology and Evolution  
 Advisory Committee, School of Integrative Biology  
 Biology Distinction Committee, School of Life Science  
 Chair Seminar Committee, Department of Ecology, Ethology and Evolution  
 Senate Committee on Student Discipline, University of Illinois  
 Senate Committee, University of Illinois  
 1998-1999 Executive Committee for Natural Resource Ecology and Conservation Graduate Program, College of Agriculture  
 Advisory Committee, Department of Ecology, Ethology and Evolution  
 Biology Distinction Committee, School of Life Science  
 Senate Committee on Student Discipline, University of Illinois  
 Senate Committee, University of Illinois  
 Steering Committee, Program in Ecology and Evolutionary Biology  
 1999-2000 Executive Committee for Natural Resource Ecology and Conservation Graduate Program, College of Agriculture  
 Advisory Committee, Department of Ecology, Ethology and Evolution  
 Senate Committee on Student Discipline, University of Illinois  
 Ad hoc committee, future hires in biotechnology, School of Integrative Biology  
 Graduate Program Committee, Program in Ecology and Evolutionary Biology  
 Chair, Graduate Programs Committee, Department of Ecology, Ethology and Evolution  
 Advisory Committee, School of Integrative Biology - elected member  
 Chair, Search Committee - Evolutionary Biologist, School of Integrative Biology  
 Campus Committee on genetically modified organisms  
 GEEB student symposium judge  
 School of Integrative Biology Fellowship Committee  
 Program in Ecology and Evolutionary Biology Fellowship Committee  
 2000-2001 Executive Committee for Natural Resource Ecology and Conservation Biology, Graduate Program, College of Agricultural, Consumer and Environmental Sciences  
 Advisory Committee, Department of Animal Biology  
 Senate Committee on Student Discipline, UIUC  
 Advisory Committee, School of Integrative Biology - elected member  
 Chair, Seminar Committee, Program in Ecology and Evolutionary Biology  
 Associate Head, Department of Animal Biology  
 2000-2002 Executive Committee for Natural Resource Ecology and Conservation Biology, Graduate Program, College of Agricultural, Consumer and Environmental Sciences

	Advisory Committee, Department of Animal Biology
	Senate Committee on Student Discipline, UIUC
	Associate Head, Department of Animal Biology
2002-2003	Sigma Xi Representative, Department of Animal Biology 2002-2003
	Graduate Programs Committee, Department of Animal Biology
	Associate Head, Department of Animal Biology
	Head, Department of Animal Biology
	Proctor & Gamble Awards Committee
	SIB Executive Committee
	Chair Advisory Committee, Department of Animal Biology
2003-2004	Sigma Xi Representative, Department of Animal Biology
	Head, Department of Animal Biology
	SIB Executive Committee
	Chair Advisory Committee, Department of Animal Biology
	Proctor & Gamble Awards Committee
	GEEB Symposium Judge
	Affirmative Action Officer
2004-2005	Sigma Xi Representative, Department of Animal Biology
	Head, Department of Animal Biology
	SIB Executive Committee
	Chair Advisory Committee, Department of Animal Biology
	Chair, Proctor & Gamble Awards Committee
	GEEB Symposium Judge
	Affirmative Action Officer
2005-2006	Sigma Xi Representative, Department of Animal Biology
	Head, Department of Animal Biology
	SIB Executive Committee
	Chair Advisory Committee, Department of Animal Biology
	Affirmative Action Officer
	Member, Environmental Council
2006-2007	Sigma Xi Representative, Department of Animal Biology
	Head, Department of Animal Biology
	SIB Executive Committee
	Chair Advisory Committee, Department of Animal Biology
	Affirmative Action Officer
	Member, Environmental Council
2007-2008	Sigma Xi Representative, Department of Animal Biology
	Head, Department of Animal Biology
	SIB Executive Committee
	Chair Advisory Committee, Department of Animal Biology
	Member, Environmental Council
	SIB Director's Search Committee
	Proctor & Gamble's Award Committee
2008-2009	Head, Department of Animal Biology

2009-2010 SIB Executive Committee  
 Chair Advisory Committee, Department of Animal Biology  
 Head, Department of Animal Biology  
 School of Integrative Biology Executive Committee  
 Chair Advisory Committee, Department of Animal Biology  
 Directors Search Committee, SIB  
 Program In Ecology, Evolution and Conservation Biology's Advisory/Entrance Committee

2010-2011 Head, Department of Animal Biology  
 Affirmative Action Officer  
 School of Integrative Biology Executive Committee  
 Chair Advisory Committee, Department of Animal Biology

2011-2012 Head, Department of Animal Biology  
 School of Integrative Biology Executive Committee  
 Chair Advisory Committee, Department of Animal Biology

2012-2013 Head, Department of Animal Biology  
 School of Integrative Biology Executive Committee  
 Chair Advisory Committee, Department of Animal Biology  
 LAS Committee – Wall of 100

2013-2014 Head, Department of Animal Biology  
 School of Integrative Biology Executive Committee  
 Chair Advisory Committee, Department of Animal Biology  
 LAS Committee – Wall of 100  
 LAS Access and Achievement/Animal Biology Undergraduate Fellows Committee  
 GEEB Symposium Head Judge

2014-2015 LAS Access and Achievement/Animal Biology Undergraduate Fellows Committee  
 GEEB Symposium Head Judge

2015-2016 LAS Access and Achievement/Animal Biology Undergraduate Fellows Committee  
 SIB Fellowship Committee  
 GEEB Symposium Head Judge  
 Campus Committee for Research and Environmental Education –Allerton Park

2016-2017 LAS Access and Achievement/Animal Biology Undergraduate Fellows Committee  
 Chair, SIB Fellowship Committee  
 GEEB Symposium Head Judge  
 Campus Committee for Research and Environmental Education –Allerton Park

## **SOCIETY AFFILIATIONS**

Sigma Xi - 1980 to present  
 American Association for the Advancement of Science  
 Ecological Society of America  
 Society for Conservation Biology  
 Society for the Study of Evolution  
 American Society of Naturalists  
 Union for Concerned Scientists

## TECHNICAL PAPER PRESENTATIONS/SYMPOSIA

- Paige, K.N. and T.G. Whitham. 1988. The use of restriction fragment length polymorphisms to study the ecological genetics of aphid-plant interactions. The XVIII International Congress of Entomology, Vancouver, Canada. Invited.
- Paige K.N. and T.G. Whitham. 1990. Aphid-plant interactions. The XIX International Congress of Entomology. Beijing, China. Invited.
- Keim, P., T.G. Whitham, and K.N. Paige. 1990. Ecological and evolutionary implications of plant hybridization. AIBS symposium sponsored by NSF and the American Plant Taxonomist Society, Hawaii. Invited.
- Trumbull, V.L. and K.N. Paige. 1995. The evolutionary response of plants to increased UV-B radiation: field studies with *Arabidopsis thaliana*. Ecological Society of America, Snowbird, Utah. August.
- Gronemeyer, P. and K.N. Paige. 1995. The effects of ungulate herbivory on paternal fitness in scarlet gilia, *Ipomopsis aggregata*: do better moms make better pops? Ecological Society of America, Snowbird, Utah. August.
- Trumbull, V.L. and K.N. Paige. 1996. Genetic variation for UV-B sensitivity: field studies with *Arabidopsis thaliana*. Ecological Society of America, Providence, Rhode Island. August.
- Bouzat, J.L., J.D. Brawn, and K.N. Paige. 1996. Genetic diversity in the Greater Prairie Chicken, *Tympanuchus cupido*: evaluating a population bottleneck. Ecological Society of America, Providence, Rhode Island. August.
- Paige, K.N., P.A. Gronemeyer, B.J. Dilger, and J.L. Bouzat. 1997. The effects of herbivory on paternal fitness in scarlet gilia: experimental and genetic studies. Ecological Society of America, Albuquerque, New Mexico. August.
- Bouzat, J.L., H.A. Lewis, and K.N. Paige. 1997. The ghost of genetic diversity past resurrected: ancient DNA analysis of the Greater Prairie Chicken, *Tympanuchus cupido*. Ecological Society of America, Albuquerque, New Mexico. August.
- Paige, K.N. 1998. Plant ecology research and *Arabidopsis*: toward a synthesis and a critique. Annual Meeting of the Ecological Society of America, Baltimore, Maryland.
- Bouzat, J.L., R.L. Westemeier, and K.N. Paige. 1998. The importance of control populations for studying the genetic effects of small population size. Ecological Society of America, Baltimore, Maryland. August.
- Paige, K.N., B. Williams and T. Hickox. 1999. Overcompensation through the paternal component of fitness. The Society for the Study of Evolution, University of Wisconsin, Madison. June 25.
- Paige, K.N. and L.L. Anderson. 2000. Multiple herbivores and coevolutionary interactions in an *Ipomopsis* hybrid swarm. The Society for the Study of Evolution, Indiana University, Bloomington. June 25.
- Hanks, L. M., K. N. Paige, and M. D. Ginzel. 2002. Molecular genetics of ALB: colonization, invasion, and spread in North America. 13th annual USDA Interagency Research Forum on Gypsy Moth and Other Invasive Species, Annapolis, MD, January.
- Paige, K.N. 2002. A habitat dependent mutualism – or where-o-where did all the gilia go? Ecological Society of America, Tucson, Arizona. August 8.

- Anderson, L.L., F.S. Hu, and K.N. Paige. 2002. A molecular-genetic approach to understanding the migration history of *Picea* (spruce) in North America. The Society for the Study of Evolution, University of Illinois, Urbana-Champaign. June 30.
- Anderson, L.L., F.S. Hu, and K.N. Paige. 2002. A molecular-genetic approach to understanding the migration history of *Picea* (spruce) in North America. Ecological Society of America, Tucson, AZ. August 5. Lynn Anderson won the Deevey Award for the best student presentation in paleoecology.
- Rowe, K.C., K.N. Paige and E.J. Heske. 2002. Phylogeographic support for the importance of rivers as dispersal corridors in eastern chipmunks. The Society for the Study of Evolution, University of Illinois, Urbana-Champaign. June 29.
- Bidart-Bouzat, M.G., K.N. Paige, E.H. Delucia, and M.R. Berenbaum. 2002. Phenotypic plasticity in *Arabidopsis thaliana* exposed to elevated CO<sub>2</sub> and herbivory. The Society for the Study of Evolution, University of Illinois, Urbana-Champaign, June 29<sup>th</sup>.
- Hanks, L. M., M. D. Ginzel, and K. N. Paige. 2003. Molecular diagnostic tools for ALB. Annual USDA Interagency Research Forum on Gypsy Moth and Other Invasive Species, Annapolis, MD, January.
- Anderson, L.L., F.S. Hu, and K.N. Paige. 2003. Postglacial migration and ice-age refugia of white spruce: evidence from chloroplast DNA. Scientific discussion meeting entitled "The evolutionary legacy of the Ice Ages", The Royal Society, London, England. May 21-22.
- Rowe, K. C., K. N. Paige, and E. J. Heske. 2004. A comparative phylogeographic approach to identifying evolutionarily significant communities. Society for the Study of Evolution, Colorado State University, Fort Collins, CO.
- Rowe, K. C., K. N. Paige, and E. J. Heske. 2004. Post-glacial recolonization and contemporary phylogeographic structure of the deciduous forest vertebrate, *Tamias striatus*. Ecological Society of America, Lewis and Clark University, Portland, OR.
- Rowe, K. C., K. N. Paige, and E. J. Heske. 2004. Phylogeography of eastern chipmunks (*Tamias striatus*): Recovering refugial isolates and Quaternary habitat associations. International Congress of Zoology, Beijing, China.
- Rowe, K.C., E.J. Heske and K.N. Paige. 2005. Effects of urban development on gene flow in white-footed mice (*Peromyscus leucopus*). Society of Mammalogists, St. Louis, Missouri.
- Rowe, K.C., E.J. Heske, and K.N. Paige. 2005. Comparative phylogeography of chipmunks and mice in relation to the Quaternary history of eastern deciduous forests. Society for the Study of Evolution, Fairbanks, Alaska.
- Ayroles, J., K. Hughes, K.C. Rowe, S. Rodriguez-Zas, C. Caceres, and K.N. Paige. 2005. From inbreeding to inbreeding depression: a genomic perspective. Society for the Study of Evolution, Fairbanks, Alaska.
- Anderson, L.L., F-S. Hu, and K.N. Paige. 2006. Dissociating genetic and environmental effects on white spruce needle morphology: can we use morphological traits as environmental proxies?. Western Forest Genetics Association, Fairbanks, AK. Invited.
- Sano, C., M. Bohn, K.N. Paige, T. Jacobs. 2006. Natural variation in inflorescence replacement in *Arabidopsis thaliana*. Arabidopsis Meeting, Madison, Wisconsin.

- Paige, K.N. 2008. Loss of Biodiversity. Environmental Horizons (Invited). April.
- Allsup, C. and K.N. Paige 2008. Tri-trophic interactions: the role of mycorrhizal fungi on plant compensation following ungulate herbivory. Ecological Society of America. Minneapolis, Minnesota.
- Siddappaji, M. and K.N. Paige. 2008. Mapping quantitative trait loci associated with compensatory responses in *Arabidopsis thaliana*. Ecological Society of America. Minneapolis, Minnesota.
- Siddappaji, M., R. Zielinski, M. Bohn, and K.N. Paige. 2009. QTLs for compensatory responses following mammalian herbivory. American Society of Plant Biologists, Honolulu, Hawaii.
- Allsup, C. and K.N. Paige 2009. Tri-trophic interactions: antagonistic versus mutualistic effects of mycorrhizal fungi on plant compensation following herbivory. Ecological Society of America. Albuquerque, New Mexico.
- Paige, K.N. and D.R. Scholes. 2012. Chromosome amplification and the phenomenon of overcompensation in plants. Ecological Society of America, Portland, Oregon.
- Scholes, D.R. and K.N. Paige. 2012. The genetic basis of endoreduplication and fitness compensation in plants. Ecological Society of America, Portland, Oregon.
- Siddappaji, M. and K.N. Paige. The role of invertase isoforms in overcompensation following mammalian herbivory: are they functionally redundant? Ecological Society of America, Portland, Oregon.
- Olds, B.P., P.J. Mulrooney, and K.N. Paige. 2012. Somatic mosaicism in *Populus trichocarpa* leads to evolutionary change. Ecological Society of America, Portland, Oregon.
- Scholes, D.R., AV Suarez, and KN Paige. 2012. Does endopolyploidy affect caste, body size, and societal role in ants? Entomological Society of America Annual Meeting – Knoxville, TN.
- Scholes, D. R., Suarez, A. V., Smith, A. A., Johnston, J. S., and Paige, K. N. 2013. Patterns of endopolyploidy and organ function in the giant ant *Dinoponera australis*. Entomological Society. Nov. Austin, TX
- Paige, K.N. 2014. The ecological and evolutionary consequences of within plant genetic variation. Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN, Dec. 7.
- Dalrymple, Justin, Dan Scholes, Ken Paige, Joshua Banta. 2014. Tolerance to apical meristem damage in wild populations of *Arabidopsis thaliana*. poster. Southwestern Association of Naturalists Annual Meeting, Stillwater, OK.
- Paige, K.N., Olds, B.P., P. J. Mulrooney, D.R. Scholes, and B.R. Pittendrigh. 2014. Trees as mosaics of genetic variability: An assessment of the somatic mutation hypothesis. Ecological Society of America, Sacramento, CA
- Scholes, D.R. and K.N. Paige. 2014. Gene expression analysis of compensatory responses to herbivory yields differences in growth, reproduction and defensive chemistry. Ecological Society of America, Sacramento, CA
- Paige, K.N. 2015. The ecological and evolutionary consequences of within plant genetic variation. Department of Biology, University of Missouri, St. Louis, Feb. 25.

- Scholes, D. R., J. Dalrymple, J. M. Mesa, J. A. Banta and K. N. Paige. 2016. The genetic basis of variation in tolerance to apical meristem damage in natural populations of *Arabidopsis thaliana*. Ecological Society of America, Ft. Lauderdale, FL. August 10.
- Mesa, J.M. and K.N. Paige. 2016. The Molecular Interdependence of Plant Tolerance and Resistance. Ecological Society of America, Ft. Lauderdale, FL. August 10.

### **Undergraduate Projects**

- Judy Lyda (Hughes Fellow, 1993-1994) “Response of *Arabidopsis thaliana* to enhanced UV-B radiation”
- Tamara McKenzie (Hughes Fellow, Summer 1997) “Within plant genetic variation in spring beauty, *Claytonia virginica*”
- Lauren M. Fischer (Hughes Fellow, SOLS Distinction project, EEE 290, 1998-1999) “Kin recognition in *Brassica rapa*”

### **Graduate Students**

#### **Former Students**

#### *M.S. Degrees (16 Students)*

- Ann-Marie Trame**, Biology Program, Chair, Graduated 1993 - Endangered Species Biologist for United States Army
- Amy Coddington**, Biology Program, Chair, Graduated 1993 - Works for a Biotech firm in San Diego
- Shane Heschel**, Biology Program, Chair, Graduated 1994 - PhD student at Brown University under Joanna Schmidt, now in a Postdoctoral position
- Lisa Mikrut**, Biology Program, Chair, Graduated 1995 - Environmental Education Specialist YMCA
- Peg Gronemeyer**, Biology Program, Chair, Graduated 1996 - Biologist in Everglades National Park
- Pervaze Sheik**, Biology Program, Chair, Graduated 1996 - PhD student at Penn State University under Chris Uhl, currently Specialist in Natural Resources Policy at the Congressional Research Service
- Lynn Anderson**, Natural Resource Ecology & Conservation Biology, Chair, Graduated 2000 – PhD student at University of Illinois under Ken Paige and Feng-Sheng Hu
- Rob Parker**, Natural Resource Ecology & Conservation Biology, Chair, Graduated 2000 – Consulting firm in Columbus, Ohio
- Mia Levine**, Program in Ecology and Evolutionary Biology, Chair, Graduated 2003 – PhD Program University of California, Davis, Postdoc Fred Hutchinson Cancer Research Center
- Julien Ayroles**, Department of Natural Resources and Environmental Sciences, Graduated 2005 – PhD Program North Carolina State University, currently Assistant Professor at Princeton University
- Eric Scott**, Program in Ecology, Evolution and Conservation Biology, Chair, Graduated 2010, currently PhD student Tufts University
- Amy Cash, Program in Ecology and Evolutionary Biology, Committee Member, currently
- Tiffany Bone, Department of Plant Biology, Committee Member

Emily Wheeler, Department of Animal Sciences, Committee Member  
Torrey Rodgers, Department of Animal Biology, Committee Member  
Katie Murphy, Department of Animal Biology, Committee Member

*Ph.D. Degrees (71 Students)*

**Juan Bouzat**, Department of Ecology, Ethology & Evolution, Chair, Graduated 1998

- Associate Professor at Bowling Green State University, Ohio

**Ed Spevak**, Department of Ecology, Ethology & Evolution, Chair, Graduated 2015 - Assistant Curator of Mammals at the Bronx Zoo in New York, currently at the St. Louis Zoo, Missouri

**Lyle Trumbull**, Department of Ecology, Ethology & Evolution, Chair, Graduated 1995 - Postdoc at Harvard University under F.A. Bazzaz

**Barry Williams**, Department of Ecology, Ethology and Evolution, Co-Chair, Graduated 2001 – Postdoc at University of Wisconsin, Madison under Sean Carroll, currently Assistant Professor Michigan State University

**Gabriela Bidart-Bouzat**, Department of Ecology, Ethology & Evolution, Chair, Graduated 2004 - NSF Postdoctoral Fellow Michigan State University, currently Associate Professor at Bowling Green State University, Ohio

**Kevin Rowe**, Department of Ecology, Ethology and Evolution, Co-Chair, Graduated Spring 2005, NSF Postdoctoral Fellow at University of California Berkely under Craig Moritz, currently Senior Curator of Mammals, Museum Victoria, Australia

**Lynn Anderson**, Program in Ecology and Evolutionary Biology, Chair, Graduate Fall 2006, Postdoctoral Fellow at Notre Dame University under Jason McLachlan, currently Lecturer in Biology at University of Michigan

**Madhura Siddappaji**, Department of Animal Biology, Chair, Graduated 2013 – Postdoc at Notre Dame University

**Daniel Scholes**, Program in Ecology, Evolution and Conservation Biology, Chair, Graduated 2013 – Postdoc at University of Illinois, Assistant Professor University of Indianapolis, Indiana

**Brett Olds**, Department of Animal Biology, Chair, Graduated 2013 – Postdoc at Notre Dame University, Research Scientist at Oceanic Institute of Hawai'i Pacific University

**Cassandra Allsup**, Program in Ecology, Evolution and Conservation Biology, Chair, Graduated Fall 2014 – Postdoc at University of Wisconsin, Madison

Tom Siebert, Department of Ecology, Ethology & Evolution, Committee Member

Karen Tyrell, Department of Ecology, Ethology & Evolution, Committee Member

Karl Halupka, Department of Ecology, Ethology & Evolution, Committee Member

Don Price, Department of Ecology, Ethology & Evolution, Committee Member

Kathryn Sieving, Department of Ecology, Ethology & Evolution, Committee Member

Nancy Solomon, Department of Ecology, Ethology & Evolution, Committee Member

Lorne Wolfe, Department of Ecology, Ethology & Evolution, Committee Member

Laura Sims, Department of Ecology, Ethology & Evolution, Committee Member

Eric McCloud, Department of Entomology, Committee Member

Benjamin Kaufman, Department of Ecology, Ethology & Evolution, Committee Member

Dan Niven, Department of Ecology, Ethology and Evolution, Committee Member

Pat Ceas, Department of Ecology, Ethology and Evolution, Committee Member



Pablo Parysow, Department of Horticulture, Committee Member  
Janet Batzli, Department of Forestry, Committee Member  
Ron Panzer, Department of Ecology, Ethology & Evolution, Committee Member  
Chris Caruso, Department of Ecology, Ethology & Evolution, Committee Member  
Hafiz Maherli, Plant Biology, Committee Member  
Dan Rosenblatt, Department of Ecology, Ethology & Evolution, Committee Member  
Diana Barber, Department of Ecology, Ethology & Evolution, Committee Member  
Julie Beckstead, Department of Plant Biology, Committee Member  
Kevin Robertson, Department of Plant Biology, Committee Member  
Cory Rubin, Department of Animal Science, Committee Member  
Jason Knouft, Department of Ecology, Ethology and Evolution, Committee Member  
Dave Chalcraft, Department of Ecology, Ethology and Evolution, Committee Member  
Moseh Wolf, Department of Ecology, Ethology and Evolution, Committee Member  
Sheila Lyons, Department of Plant Biology, Committee Member  
Jennifer Nesbitt, Department of Ecology, Ethology and Evolution, Committee  
Member  
Jeff Steinmetz, Department of Ecology, Ethology and Evolution, Committee Member  
Tracey Galarowicz, Department of Ecology, Ethology and Evolution, Committee  
Member  
Robb Diehl, Department of Ecology, Ethology & Evolution, Committee Member  
Karin Nelson, Department of Ecology, Ethology and Evolution, Committee Member  
Heather Vance, Department of Ecology, Ethology and Evolution, Committee Member  
Sunshine Van Bael, Department of Ecology, Ethology and Evolution, Committee Member  
Tanya Jackson, Department of Plant Biology, Committee Member  
Matt Ginzel, Department of Entomology, Committee Member  
Wachareeporn Trinachartvanit, Department of Animal Biology, Committee Member  
Yi-Ching Lin, Department of Plant Biology, Committee Member  
Michael Dreslik, Natural Resource Ecology & Conservation Biology, Committee Member  
Jenni Anderson, Plant Biology, Committee Member  
Mike Ward, Department of Ecology, Ethology and Evolution, Committee Member  
Solon Morse, Department of Ecology, Ethology & Evolution, Committee Member  
Mary Ann Feist, Department of Plant Biology, Committee Member  
Rachel Gallery, Department of Plant Biology, Committee Member  
Eloisa Lasso, Program in Ecology and Evolutionary Biology, Department of Plant Biology,  
Committee Member  
Gerardo Carfagno, Program in Ecology and Evolutionary Biology, Committee Member  
Moni Berg, Department of Animal Biology  
Mike Allen, Program in Ecology and Evolutionary Biology, Committee Member  
Cecile Sano, Department of Plant Biology, Committee Member  
Mike Carey, Program in Ecology and Evolutionary Biology, Committee Member  
Brad Cosentino, Program in Ecology and Evolutionary Biology, Committee Member  
Jenny Duggan, Department of Animal Biology, Committee Member  
Emily Wheeler, Department of Animal Sciences, Committee Member  
Silvia Remolina, Department of Animal Biology, Committee Member

Sigrid Smith, Program in Ecology, Evolution and Conservation Biology, Prelim Committee  
Bill Wills, Department of Animal Biology, Committee Member  
Mark Davis, Department of Natural Resources and Environmental Sciences, Committee Member  
Molly McNicole, Department of Plant Biology, Committee Member  
Daniel Welsh, Department of Animal Biology, Committee Member  
Cathy Bechtoldt, Program in Ecology, Evolution, and Conservation Biology, Committee Member  
Daniel Ruffato, Department of Plant Biology, Committee Member  
Katherine Chi, Department of Plant Biology, Committee Member  
Muchu Zhou, Program in Ecology, Evolution and Conservation Biology, Committee Member  
Rhiannon Perry, Department of Plant Biology, Committee Member  
Lisa Powers, Program in Ecology, Evolution and Conservation Biology, Committee Member  
Jim Lamer, Department of Natural Resources and Environmental Sciences, Committee Member  
Julia Ossler, Program in Ecology, Evolution and Conservation Biology, Committee Member  
Adriana Correles, Department of Plant Biology, Committee Member

### **Current Students**

#### *Ph.D. (7 Students)*

**Miles Mesa**, Department of Animal Biology, Chair  
**Samantha Capel**, Department of Animal Biology, Chair  
**Cody Jones**, Department of Animal Biology, Chair  
Amanda Owings, Program in Ecology, Evolution and Conservation Biology, Committee Member  
Jason Gleditsch, Department of Natural Resources and Environmental Sciences, Committee Member  
Dalon White, PEEC, Department of Natural Resources and Environmental Sciences, Committee Member  
Greg King, Department of Natural Resources and Environmental Sciences, Committee Member

#### *M.S. (2 Students)*

**Andrew Wsalek**, Department of Animal Biology, Chair  
Federico Casale, Department of Crop Sciences, Committee Member  
**Bolded - I serve as advisor & chair for the student**

### **Postdoctoral**

Dr. William C. Capman, Associate Professor, Augsburg College, Minnesota  
Dr. Daniel Scholes, Assistant Professor, Indianapolis University, Indiana

### **Visiting Scientists**

An Yulin, Senior Agronomist, Chief of Plant Quarantine Laboratory, Nanjing, China – Spent a month working with us on Asian Long-horned beetle genetics, June, 2001